

**UNDERGRADUATE
HANDBOOK
SESSION 2021/2022**

WELCOMING MESSAGE FROM THE DEAN



Assalamu'alaikum Warahmatullahi Wabarakatuh and Salam Sejahtera.

Congratulations and welcome to the new students of the Faculty of Built Environment (FBE). You are a truly extraordinary group of students who have enrolled when the Covid19 pandemic is still around! On behalf of the entire FBE community, I am thrilled that you have embarked in this journey with FBE to embrace a new experience of your life.

Millions of students and youth across the globe have been affected by university closures and the fragile re-opening due to the COVID-19 outbreak. Face to face, online, and blended education have become part of educational institutions' daily activities. FBE is trying to cope with new challenges of the pandemic through these new normal practices. E-Learning has moved from a desirable supportive tool toward the foremost element in delivering academic programs. Covid-19 has forced us into a very rapid shift to online learning.

The initial shock that the educational community suffered months ago, remains. Many countries around the world are fighting for the face-to-face education to be revived. We are still not sure when this pandemic will end, so the discussion about what will remain and what will change, brings a challenge to the universities and experts. This also leads to making prognosis about possible scenarios for the educational system. Apparently, nothing will be the same with the past, however lecturers and students already had, and still have, different opinions about this scenario, and what we learnt from this bitter experience. In any case, it is also necessary to look at the problem from a users' bottom-up approach, in order to understand what is the reality of lecturers or students if we want to make proposals for the future education.

I know you are preparing for the commencement of your university experience under a particularly challenging set of conditions and mind. Even as the Covid19 continues to transform our world, the FBE community spirit remains as strong and as vital as ever. The entire university community has responded to these recent challenges with ingenuity, compassion and a shared commitment to our mission. We are eager for you to join us and engage in FBE's transformative education, and we realise that you are eager to know what your FBE experience

will look like under these unique circumstances. While your first semester at FBE will be different from the previous students' experience, please know that we are committed in designing and delivering an outstanding experience for you this time.

The FBE offers a comprehensive range of degree programmes that are distinctive within Malaysia and South East Asia Region. All programmes are accredited by the Malaysian Qualifying Agency (MQA), local and international professional bodies. The programmes bring theory to practice through rigorous curricula led by experts in their fields, providing opportunities for students to excel academically and professionally. Hence, the broad range of programmes provide unique teaching and learning opportunities tailored to undergraduate in an environment which enables intellectual, choice and critical rigour to flourish.

The FBE welcomes you again into this vibrant environment where you will be part of a diverse student body in which students are holistically developed as confident, innovative, knowledgeable and future ready professionals or we called it as DNA UM. Finally, I want to reiterate that your safety is of the utmost importance. While keeping that foremost in our thoughts, we can continue to work together, remain determined, and move towards for a better tomorrow.

Good luck and enjoy your studies!
#kitajagakita

Sincerely,
Professor Dr Sr Anuar Alias
Dean



UNIVERSITI MALAYA RANKED

QS UNIVERSITY RANGKINGS 2021

MALAYSIA



ASIA



WORLD



TIMES HIGHER EDUCATION ASIA UNIVERSITY RANGKINGS 2021



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INTRODUCTION

The Faculty of Built Environment (FBE) offers five undergraduate professional programmes tailored to meet the nation's construction and real estate sectors' manpower needs. These programmes are accredited at the national and international levels.

The Bachelor of Science in Architecture programme is accredited with Part I recognition by the Board of Architects Malaysia (LAM). The same programme is also accredited by the Royal Institute of British Architecture (RIBA, UK) since 2005, which also leads to its Part I accreditation. This recognition is considered an achievement as it is the first programme in Malaysia recognised by RIBA and one of only five universities in East Asia.

The Bachelor of Building Surveying programme was developed based on the Programme Standards: Building Surveying by Malaysian Qualifications Agency (MQA). The programme is accredited by the Royal Institution of Surveyors Malaysia (RISM) and the Royal Institution of Surveyors (RICS, UK).

Meanwhile, the Bachelor of Real Estate programme is accredited by the Board of Valuers, Appraisers, Estate Agents and Property Managers, Malaysia (BOVEAP) as well as Royal Institution of Chartered Surveyors (RICS, UK).

FBE's Bachelor of Quantity Surveying programme earned its accreditation from the Board of Quantity Surveyors Malaysia (BQSM). Additionally, the programme is also accredited by the Royal Institution of Chartered Surveyors (RICS, UK) since 2004 as well as the Pacific Association of Quantity Surveyors (PAQS) since 2017. This programme was the first in Malaysia to receive the RICS accreditation and the second programme from public university accredited by PAQS.

Established in 2011 the Bachelor of Urban and Regional Planning is the fifth undergraduate programme in FBE and is accredited by the Board of Town Planners Malaysia (BTPM).

Since its establishment 24 years ago, FBE has always managed to attract the best achievers from high schools as well as from foundation and matriculation centres. Additionally, FBE also receives applications from other countries. This is well reflected by the high entry point requirements needed for candidates to be considered for intake. Some of our students have shown their achievements and competitiveness by winning numerous awards and medals both locally and internationally. In addition, our students also have an opportunity to be

part of outbound exchange programmes abroad and to experience cross-cultural learning from international inbound students.

FBE's graduates are not only highly demanded in Malaysia but also regularly employed in different parts of the world such as the United Kingdom, Australia, New Zealand, the Middle East countries, Singapore, China, Hong Kong SAR, Brunei and Indonesia. Thus, FBE is at the forefront of training students with a high degree of international recognition consistent with national aspirations of creating 'Globalised Malaysians'.

The FBE offers 2 postgraduate research programmes namely PhD in Built Environment and Master of Built Environment. Additionally, FBE also offers 5 master by coursework programmes; Master of Real Estate (MRE), Master of Project Management (MPM), Master of Facilities and Maintenance Management (MFMM) and also Master of Architecture (M.Arch). Both MRE and MFMM programmes are accredited by the RICS (UK) while its 2-year M.Arch programme leads to Part II recognition by LAM and RIBA.

The challenges faced by FBE in the oldest and most prestigious university in Malaysia have inspired it to be regarded as a centre of excellence in the development and dissemination of knowledge and professionalism in the field of the built environment, both nationally and regionally. The FBE has occupied the 10-storey Mercu Alam Bina since October 2012, which is a state-of-the-art building while transforming it as a living lab for research.

VISION, MISSION AND OBJECTIVES

VISION

- To be an internationally renowned Faculty of Built Environment in research, innovation, publication and teaching

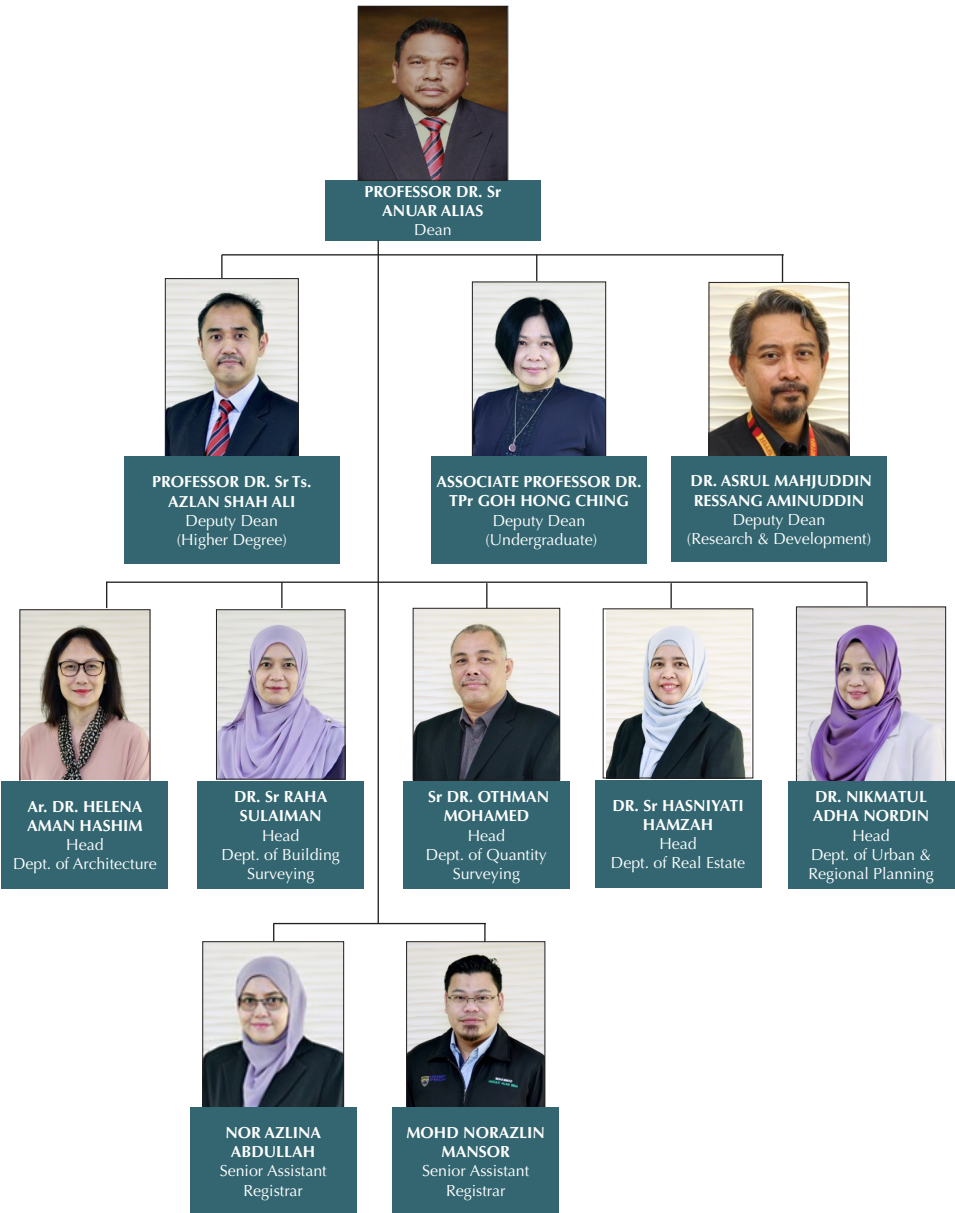
MISSION

- To advance knowledge and learning through quality research and education for the nation and for humanity

OBJECTIVES

- To be the centre of excellence in the built environment studies and to meet the demands of the construction industry in producing a responsible and competent professionals in the future
- To create a healthy and conducive intellectual environment, equipping its graduates in the ever rapidly changing future
- To develop a premier research centre, in line with its position as the leading university in Malaysia, recognised on the territorial, national and international levels
- To contribute knowledge and give consultation to society and the nation in the field of built environment for the development and the well-being of the world

ADMINISTRATIVE MANAGEMENT CHART



ACADEMIC SESSION 2021/2022

SEMESTER I		
Registration Course Module (Refer registration schedule: https://umsitsguide.um.edu.my)	2 weeks	24.9.2021 – 8.10.2021
Week of Welcome - WOW	1 week	10.10.2021 – 17.10.2021
Lectures	7 weeks*	18.10.2021 – 05.12.2021
Mid Semester Break I	1 week	06.12.2021 – 12.12.2021
Lectures	7 weeks*	13.12.2021 – 30.01.2022
Revision Week	1 week*	31.01.2022 – 06.02.2022
Examination Semester I	2 weeks	07.02.2022 – 20.02.2022
Semester Break	3 weeks	21.02.2022 – 13.03.2022
	<u>24 weeks</u>	
SEMESTER II		
Registration Course Module (Refer registration schedule: https://umsitsguide.um.edu.my)	2 weeks	18.02.2022 – 4.03.2022
Lectures	7 weeks*	14.03.2022 – 01.05.2022
Mid Semester Break II	1 week*	02.05.2022 – 08.05.2022
Lectures	7 weeks*	09.05.2022 – 26.06.2022
Revision Week	1 week*	27.06.2022 – 03.07.2022
Examination Semester II	2 weeks	04.07.2022 – 17.07.2022
	<u>20 weeks</u>	
SEMESTER BREAK		
Semester Break	9 weeks*	18.07.2022 – 18.09.2022
SPECIAL SEMESTER		
Courses Registration (Module)	1 week	01.07.2022 – 08.07.2022
Lectures	7 weeks*	18.07.2022 – 04.09.2022
Examination Special Semester	1 week	05.09.2022 – 11.09.2022
Special Semester Break	1 week	12.09.2022 – 18.09.2022
	<u>10 weeks</u>	

*Public Holiday (Malaysia)

* National Day (31 August 2021)

Malaysia Day (16 September 2021)

Birthday of Prophet Muhammad s.a.w (19 October 2021)

Deepavali (4 November 2021)

Christmas (25 December 2021)

New Year (1 January 2022)

Thaipusam (18 January 2022)

Federal Territory Day (1 February 2022)

Chinese New Year (1 & 2 February 2022)

Nuzul Al-Quran (19 April 2022)

Labour Day (01 May 2022)

Eid Al-Fitr (2 & 3 May 2022)

Wesak Day (15 May 2022)

Yang dipertuan Agong's Birthday (6 June 2022)

Eid Al-Adha (9 July 2022)

Awal Muharam (30 Julai 2022)

National Day (31 August 2022)

Calendar

2021

January 2021

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February 2021

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March 2021

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April 2021

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June 2021

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August 2021

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September 2021

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November 2021

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2022

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March 2022

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April 2022

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May 2022

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June 2022

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July 2022

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August 2022

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September 2022

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November 2022

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December 2022

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ADMINISTRATION MEMBERS





LIST OF STAFF AT DEAN'S OFFICE

DETAILS	
<p>Professor Dr. Sr Anuar Alias Dean 03 – 7967 5395 anuar_a@um.edu.my</p>	
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LIST OF SUPPORTING STAFF

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<p>Mohammad Rentah Operational Assistant 03-79677955 zezul@um.edu.my</p>		<p>Zainal Musa Operational Assistant 03 – 7967 7955 zaenal@um.edu.my</p>	

UNIVERSITY COURSES

GIG1003

2 credits

BASIC ENTREPRENEURSHIP CULTURE**Synopsis of Course Contents**

This course will attempt to inculcate the basic elements of entrepreneurship in the students. Initiatives are taken to open their minds and motivate the entrepreneurial spirit in this potential target group. The course encompasses theories and types of entrepreneurship, the importance of entrepreneurship and factors affecting entrepreneurship, entrepreneurship development in Malaysia, ethics of entrepreneurship, creativity and innovation in entrepreneurship, business opportunity, ability to start a business, developing business plans and skills to run and manage a business. The course also incorporates direct exposure to the real business environment.

Learning Outcomes

At the end of the course, students are able to:

1. Identify entrepreneurial opportunities.
2. Execute the business plan.
3. Demonstrate the ability to manage time and resources.
4. Apply creativity and innovation in entrepreneurship.

Assessment:

Continuous Assessment 100%

GIG1004

2 credits

INFORMATION LITERACY**Synopsis of Course Contents**

This course will develop student information management skills so that they can become effective and efficient users of information. These essential skills will contribute to the academic success as well as create a foundation for lifelong learning. Therefore, this course focuses on the strategic use of information and references sources in various format. Evaluation of information obtained and the preparation of reference list is also emphasized.

Learning Outcomes

At the end of the course, students are able to:

1. Identify various information sources and references.
2. Apply knowledge to choose relevant information from various sources.
3. Prepare reference list according to selected citation style.

Assessment:

Continuous Assessment : 100%

GIG1005

2 credits

SOCIAL ENGAGEMENT**Synopsis of Course Contents**

This course exposes the students on social engagement and their role as volunteers. Students need to plan their social engagement programme and will be placed at a specific location based on their programme. Students have to write a report and make a presentation on their experience with the community.

Learning Outcomes

At the end of the course, students are able to:

1. Demonstrate the awareness of the importance of social engagement.
2. Work together in a team and with the community.
3. Show effective communication skills with community.

Assessment:

Continuous Assessment : 100%

GIG1012

2 credits

PHILOSOPHY AND CURRENT ISSUES**Synopsis of Course Contents**

This course covers philosophical relations with the Philosophy of National Education and Rukunegara. The use of philosophy as a tool to purify the culture of thought in life through the arts and methods of thinking and human concepts. The main topics in philosophy are epistemology, metaphysics and ethics discussed in the context of current issues. Emphasis is given to philosophy as a basis for fostering intercultural dialogue and fostering one's values. At the end of this course students will be able to see the disciplines of science as one comprehensive body of knowledge and related to each other.

Learning Outcomes

At the end of the course, students are able to:

1. Explain current issues based on philosophy, the Philosophy of National Education and the Rukunegara.
2. Explain current issues based on the main of thoughts from the various streams of philosophy.
3. Explain current issues through a comparative perspective of philosophy as a basis for establishing inter-cultural dialogue.

Assessment:

Continuous Assessment 70%

Final Examination 30%

GIG1013

2 credits

APPRECIATION OF ETHICS AND CIVILISATIONS**Synopsis of Course Contents**

This course discusses ethical concepts from different civilization perspectives. It aims to identify the systems, developmental stages, progress and culture of a nation in strengthening social cohesion. In addition, discussions on contemporary issues in the economic, political, social, cultural and environmental aspects from an ethical and civil perspective can produce students who are morally and professionally sound. The application of appropriate High Impact Education Practices (HIEPs) is used in the delivery of this course. At the end of this course students will be able to relate ethics and civic-minded citizenship.

Learning Outcomes

At the end of the course, students are able to:

1. Explain the ethical concepts of different civilizations.
2. Compare systems, levels of development, social progress and culture across nationalities.
3. Discuss contemporary issues related to economics, politics, the social, the environment and culture from the perspective of ethics and civilization.

Assessment:

Continuous Assessment 70%

Final Examination 30%

GLT1002

2 credits

MASTERING ENGLISH I (pre-requisite-MUET Band 2)**Synopsis of Course Contents**

This course is designed for students with basic proficiency in English. It focuses on basic speaking and reading skills, with an emphasis on accuracy in grammar and on vocabulary building. Students will learn structural accuracy and language appropriateness by being exposed to the language in a variety of contexts.

Learning Outcomes

At the end of the course, students are able to:

1. Identify key information in short, simple reading texts.
2. Use grammar correctly at sentence level.
3. Employ suitable vocabulary based on context.
4. Speak accurately and appropriately for everyday expressions.

Assessment:

Continuous Assessment: 60%

Final Exam: 40%

GLT1003

2 credits

MASTERING ENGLISH II (pre-requisite Mastering English I)**Synopsis of Course Contents**

This course is designed for students with basic proficiency in English. Focus is on building speaking and reading competence with an emphasis on accuracy in grammar and on vocabulary building. Students will develop structural accuracy, reasonable oral fluency and language appropriateness by practising the language in a variety of contexts.

Learning Outcomes

At the end of the course, students are able to :

1. Discuss information in short, simple reading texts.
2. Express ideas appropriately in simple terms in areas of most immediate relevance.
3. Use grammar correctly to express ideas.

Assessment:

Continuous Assessment: 60%

Final Exam: 40%

GLT1004

2 credits

MASTERING ENGLISH III (pre-requisite Mastering English II)**Synopsis of Course Contents**

This course is designed for students with a developing pre-intermediate proficiency level in English. Together with the use of suitable vocabulary and accurate grammatical structures, the course focuses on further expanding students' comprehension of reading texts as well as their competency in writing and speaking skills.

Learning Outcomes

At the end of the course, students are able to :

1. Describe the immediate environment in simple terms.
2. Employ accurate grammatical structures in simple, connected texts.
3. Apply essential reading skills to texts of immediate relevance.

Assessment:

Continuous Assessment: 60%

Final Exam: 40%

GLT1005

3 credits

MASTERING ENGLISH IV (pre-requisite MUET Band 3)**Synopsis of Course Contents**

This course is designed to improve students' English Language proficiency in terms of grammatical accuracy and language skills at the pre-intermediate level. Students will be exposed to a variety of reading texts in order to improve their reading skills. Students will also be given ample speaking practice to develop their confidence in communicating and interacting with others in a multitude of situations. The course will also improve students' basic skills in writing sentences and paragraphs.

Learning Outcomes

At the end of the course, students are able to:

1. Produce simple connected texts on familiar topics.
2. Describe experiences and events.
3. Determine the main points in short texts.

Assessment:

Continuous Assessment: 60%

Final Exam: 40%

GLT1006

3 credits

MASTERING ENGLISH V (pre-requisite Mastering English IV)**Synopsis of Course Contents**

This course is designed to improve students' English Language proficiency in terms of grammatical accuracy and language skills at the intermediate level. Students will be exposed to a variety of reading texts in order to improve their reading skills. Students will also be given ample speaking practice to develop their confidence in communicating and interacting with others in a multitude of situations. The course improves students' skills in writing paragraphs and essays.

Learning Outcomes

At the end of the course, students are able to:

1. Produce clear connected texts on familiar topics.
2. Explain ideas and opinions clearly and coherently.
3. Interpret the main points in short texts.

Assessment:

Continuous Assessment: 60%

Final Exam: 40%

GLT1007

3 credits

ESSENTIAL WRITING SKILLS (pre-requisite Mastering English IV)**Synopsis of Course Contents**

This course introduces the process of paragraph development and the generation of ideas in order to write within a variety of rhetorical patterns. It focuses on accurate and organised structures in writing. The course helps students to understand the relationship between paragraphs in an essay.

Learning Outcomes

At the end of the course, students are able to :

1. Produce a variety of grammatically and structurally correct sentences.
2. Write different types of paragraphs coherently and cohesively.
3. Organise paragraphs into essays.

Assessment:

Continuous Assessment: 60%

Final Exam: 40%

GLT1008

3 credits

EFFECTIVE COMMUNICATION (pre-requisite Mastering English IV)**Synopsis of Course Contents**

This course focuses on speaking English accurately and coherently. It also develops students' communication skills and strategies that enable them to interact appropriately and accurately. Students will learn to speak accurately using the appropriate language strategies in a variety of informal situations.

Learning Outcomes

At the end of the course, students are able to:

1. Present ideas clearly, accurately and spontaneously.
2. Discuss topics of current interest.
3. Employ appropriate communication strategies to converse effectively and accurately.

Assessment:

Continuous Assessment: 100%

GLT1009

3 credits

MASTERING ENGLISH VI (pre-requisite MUET Band 4)**Synopsis of Course Contents**

This course is designed to fortify students' English Language proficiency in terms of accuracy and effectiveness at a developing upper intermediate level. Students will be taught the four language skills with a focus on accurate language use in reading, writing and speaking. The students will be exposed to a variety of texts to develop a higher level of proficiency that will allow them to apply the skills learnt.

Learning Outcomes

At the end of the course, students are able to:

1. Construct clear, detailed texts on a wide range of subjects.
2. Interact fluently and spontaneously.
3. Analyse main ideas of complex texts on concrete topics.

Assessment:

Continuous Assessment: 60%

Final Exam: 40%

GLT1015

3 credits

ADVANCED PROFESSIONAL WRITING (pre-requisite MUET Band 5/6)**Synopsis of Course Contents**

This course is designed to equip students with the necessary writing skills to meet the needs of the workplace. Students will also be taught to produce clear, accurate and well organised professional business documents. Students will be required to analyse and respond to a variety of situations and to write for identified audiences. The course also explores the ways in which technology helps shape business writing and communication.

Learning Outcomes

At the end of this course, students are able to:

1. Demonstrate the ability to apply appropriate features of effective writing.
2. Develop documents common in business writing genres.
3. Write up on a research based project.

Assessment:

Continuous Assessment: 100%

GLT1017

BASIC MALAY LANGUAGE

2 credits

Synopsis of Course Contents

This course emphasis matering basic skills in Malay for international students enrolled in the undergraduate study programmes. The course includes four skills, which are pronunciation and speaking; listening, reading and writing in Malay for basic communication. Emphasis is given in oral and written exercises.

Learning Outcomes

At the end of this course, students are able to:

1. Read syllables, words, phrases or expressions in Malay correctly.
2. Demonstrate spoken and written skills using simple Malay.
3. Write short paragraphs on selected topics using simple language styles.

Assessment:

Continuous Assessment	60%
Final Examination	40%

LIST OF REFERENCE:

- 1. MUET** - MALAYSIAN UNIVERSITY ENGLISH TEST
- 2. IELTS** - INTERNATIONAL ENGLISH LANGUAGE TESTING SYSTEM
- 3. TOEFL** - TEST OF ENGLISH AS A FOREIGN LANGUAGE
- 4. PTE (ACADEMIC)** - PEARSON TEST OF ACADEMIC ENGLISH
- 5. FCE** - CAMBRIDGE ASSESSMENT ENGLISH: FRIST
- 6. GCE (A LEVEL)** - GENERAL CERTIFICATE OF EDUCATION (A LEVEL)
UNIVERSITY OF CAMBRIDGE
- 7. IGCSE/GCSE** - GENERAL CERTIFICATE OF SECONDARY
EDUCATION (O LEVEL), UNIVERSITY OF
CAMBRIDGE

UNIVERSITY COURSE (ENGLISH LANGUAGE) FACULTY OF LANGUAGES AND LINGUISTICS LIST OF COURSES TO BE COMPLETED BY ALL STUDENTS			
PATH 1	PATH 2	PATH 3	PATH 4
<ul style="list-style-type: none"> • MUET BAND 2 • IELTS Band 4.0 • TOEFL Paper – Based Test (437 – 473) • TOEFL Computer – Based Test (123 – 150) • TOEFL Internet – Based Test (41 – 52) (3 Courses x 2 Credits)	<ul style="list-style-type: none"> • MUET BAND 3 • IELTS Band 4.5 – 5.0 • TOEFL Paper – Based Test (477 – 510) • TOEFL Computer – Based Test (153 – 180) • TOEFL Internet – Based Test (53 – 64) (2 Courses x 3 Credits)	<ul style="list-style-type: none"> • MUET BAND 4 • IELTS Band 5.5 – 6.0 • TOEFL Paper – Based Test (513 – 547) • TOEFL Computer – Based Test (183 – 210) • TOEFL Internet – Based Test (65-78) • GCE A Level (English) (Minimum C) (2 Courses x 3 Credits)	<ul style="list-style-type: none"> • MUET BAND 5 & BAND 6 • IELTS Band 6.5 – 9.0 • TOEFL Paper – Based Test (550 – 677) • TOEFL Computer – Based Test (213 – 300) • TOEFL Internet – Based Test (79 – 120) • GCE A Level (English) (B & A) (2 Courses x 3 Credits)
<u>COMPULSORY</u> <ul style="list-style-type: none"> • GLT1002 - Mastering English I • GLT1003 - Mastering English II • GLT1004 - Mastering English III 	<u>COMPULSORY</u> <ul style="list-style-type: none"> • GLT1005 - Mastering English IV <u>** CHOOSE ONE :</u> <ul style="list-style-type: none"> • GLT1006 - Mastering English V • GLT1007 - Essential Writing Skills • GLT1008 - Effective Communication 	<u>COMPULSORY</u> <ul style="list-style-type: none"> • GLT1009 - Mastering English VI <u>** CHOOSE ONE :</u> <ul style="list-style-type: none"> • GLT1011 - Technical Writing Skills in English • GLT1012 - Presentation Skills in English 	<u>COMPULSORY*</u> <ul style="list-style-type: none"> • GLT1014 – Advanced Communication Skills • GLT1015 – Advanced Professional Writing *(Students can only register for one course per semester)

*** These course have pre-requisites and students can only register for them after obtaining a PASS in the compulsory course as stipulated in the respective PATH.*

Note:

3 credit English courses will only be offered for session intake 2021/2022 and below with old programme structure (Bachelor of Building Surveying, and Bachelor of Quantity Surveying)

DESCRIPTION OF UNIVERSITY ENGLISH LANGUAGE COURSES

NO.	CODE & TITLE (NO. OF CREDITS)	SYNOPSIS	LEVEL OF REQUIRED PROFICIENCY
1.	GLT1002 : Mastering English I 2 Credits <ul style="list-style-type: none"> Offered in Semester 1 & 2 	This course is designed for students with basic proficiency in English. It focuses on basic speaking and reading skills, with an emphasis on accuracy in grammar and on vocabulary building. Students will learn structural accuracy and language appropriateness by being exposed to the language in a variety of contexts.	CEFR A1+ <ul style="list-style-type: none"> MUET BAND 2 IELTS Band 4.0 TOEFL Paper – Based Test (437 – 473) TOEFL Computer – Based Test (123 – 150) TOEFL Internet – Based Test (41 – 52) PTE (Academic) – (10 – 28)
2.	GLT1003: Mastering English II 2 Credits <ul style="list-style-type: none"> Offered Only in Semester 2 Prerequisite: Students must pass GLT1002 (Mastering English I) with grade C 	This course is designed for students with basic proficiency in English. Focus is on building speaking and reading competence with an emphasis on accuracy in grammar and on vocabulary building. Students will develop structural accuracy, reasonable oral fluency and language appropriateness by practising the language in a variety of contexts.	CEFR A2 <ul style="list-style-type: none"> Pass GLT1002 with grade C
3.	GLT1004: Mastering English III 2 Credits <ul style="list-style-type: none"> Offered Only in Semester 1 Prerequisite: Students must pass GLT1003 (Mastering English II) with grade C 	This course is designed for students with a developing pre-intermediate proficiency level in English. Together with the use of suitable vocabulary and accurate grammatical structures, the course focuses on further expanding students' comprehension of reading texts as well as their competency in writing and speaking skills.	CEFR Low B1 <ul style="list-style-type: none"> Pass GLT1003 with grade C

NO.	CODE & TITLE (NO. OF CREDITS)	SYNOPSIS	LEVEL OF REQUIRED PROFICIENCY
4.	GLT1005: Mastering English IV 3 Credits <ul style="list-style-type: none"> Offered in Semester 1 & 2 	This course is designed to improve students' English Language proficiency in terms of grammatical accuracy and language skills at the pre-intermediate level. Students will be exposed to a variety of reading texts in order to improve their reading skills. Students will also be given ample speaking practice to develop their confidence in communicating and interacting with others in a multitude of situations. The course will also improve students' basic skills in writing sentences and paragraphs.	CEFR B1 <ul style="list-style-type: none"> MUET BAND 3 IELTS Band 4.5 – 5.0 TOEFL Paper – Based Test (477 – 510) TOEFL Computer – Based Test (153 – 180) TOEFL Internet – Based Test (53 – 64) PTE (Academic) – (29 - 41)
5.	GLT1006: Mastering English V 3 Credits <ul style="list-style-type: none"> Offered Only in Semester 2 Prerequisite: Students must pass GLT1005 (Mastering English IV) with grade C 	This course is designed to improve students' English Language proficiency in terms of grammatical accuracy and language skills at the intermediate level. Students will be exposed to a variety of reading texts in order to improve their reading skills. Students will also be given ample speaking practice to develop their confidence in communicating and interacting with others in a multitude of situations. The course improves students' skills in writing paragraphs and essays.	CEFR B1+/ Low B2 <ul style="list-style-type: none"> Pass GLT1005 with grade C
6.	GLT1007: Essential Writing Skills 3 Credits <ul style="list-style-type: none"> Offered in Semester 1 & 2 Prerequisite: Students must pass GLT1005 (Mastering English IV) with grade C 	This course introduces the process of paragraph development and the generation of ideas in order to write within a variety of rhetorical patterns. It focuses on accurate and organised structures in writing. The course helps students to understand the relationship between paragraphs in an essay.	CEFR B1+/ Low B2 <ul style="list-style-type: none"> Pass GLT1005 with grade C

NO.	CODE & TITLE (NO. OF CREDITS)	SYNOPSIS	LEVEL OF REQUIRED PROFICIENCY
7.	GLT1008: Effective Communication 3 Credits <ul style="list-style-type: none"> Offered Only in Semester 1 & 2 Prerequisite: Students must pass GLT1005 (Mastering English IV) with grade C 	This course focuses on speaking English accurately and coherently. It also develops students' communication skills and strategies that enable them to interact appropriately and accurately. Students will learn to speak accurately using the appropriate language strategies in a variety of informal situations.	CEFR B1+/ Low B2 <ul style="list-style-type: none"> Pass GLT1005 with grade C
8.	GLT1009: Mastering English VI 3 Credits <ul style="list-style-type: none"> Offered in Semester 1 & 2 	This course is designed to fortify students' English Language proficiency in terms of accuracy and effectiveness at a developing upper intermediate level. Students will be taught the four language skills with a focus on accurate language use in reading, writing and speaking. The students will be exposed to a variety of texts to develop a higher level of proficiency that will allow them to apply the skills learnt.	CEFR B2 <ul style="list-style-type: none"> MUET BAND 4 IELTS Band 5.5 – 6.0 TOEFL Paper – Based Test (513 – 547) TOEFL Computer – Based Test (183 – 210) TOEFL Internet – Based Test (65-78) PTE (Academic) – (42 – 57) FCE (B & C) GCE A Level (English) (Minimum C) IGCSE/GCSE (English) (A, B & C)
9.	GLT1011: Technical Writing Skills in English 3 Credits <ul style="list-style-type: none"> Offered Only in Semester 2 Prerequisite: Students must pass GLT1009 (Mastering English VI) with grade C 	This course will introduce students to effective technical writing skills. Using materials related to the workplace, students will be taught in stages to write a variety of technical documents.	CEFR B2+/ Low C1 <ul style="list-style-type: none"> Pass GLT1009 with grade C

NO.	CODE & TITLE (NO. OF CREDITS)	SYNOPSIS	LEVEL OF REQUIRED PROFICIENCY
10.	GLT1012: Presentations Skills in English 3 Credits <ul style="list-style-type: none"> Offered Only in Semester 1 & 2 Prerequisite: Students must pass GLT1009 (Mastering English VI) with grade C 	The course encompasses different aspects of communication used in delivering effective oral presentations. Appropriate examples from a variety of situations are used as practice materials for students to analyse, discuss and apply the communication strategies taught.	CEFR B2+/ Low C1 <ul style="list-style-type: none"> Pass GLT1009 with grade C
11.	GLT1014 : Advanced Communication Skills 3 Credits <ul style="list-style-type: none"> Offered Only in Semester 1 	This course aims to develop advanced communication skills among students when delivering presentations and interacting in group discussions in diverse settings. Students will prepare and deliver organized, impactful presentations on a variety of topics using appropriate language, style and structure to engage the audience. Students will also be exposed to different communication strategies to enable them to interact effectively and communicate with clarity in collaborative discussions.	CEFR C1 <ul style="list-style-type: none"> MUET BAND 5 & BAND 6 IELTS Band 6.5 – 9.0 TOEFL Paper – Based Test (550 – 677) TOEFL Computer – Based Test (213 – 300) TOEFL Internet – Based Test (79 – 120) PTE (Academic) (58 – 90) FCE (A) GCE A Level (English) (B & A)
12.	GLT1015: Advanced Professional Writing 3 Credits <ul style="list-style-type: none"> Offered Only in Semester 2 	This course is designed to equip students with the necessary writing skills to meet the needs of the workplace. Students will also be taught to produce clear, accurate and well organised professional business documents. Students will be required to analyse and respond to a variety of situations and to write for identified audiences. The course also explores the ways in which technology helps shape business writing and communication.	

ENGLISH COMMUNICATION PROGRAMME (UNIVERSITY COURSE) (KURSUS BAHASA INGGERIS KOMUNIKASI- KURSUS UNIVERSITI) FACULTY OF LANGUAGES AND LINGUISTICS LIST OF COURSES TO BE COMPLETED BY ALL STUDENTS			
PATH 1	PATH 2	PATH 3	PATH 4
<ul style="list-style-type: none"> • MUET BAND 2 • IELTS Band 4.0 • TOEFL Paper – Based Test (437 – 473) • TOEFL Computer – Based Test (123 – 150) • TOEFL Internet – Based Test (41 – 52) • PTE (Academic) – (10 – 28) 	<ul style="list-style-type: none"> • MUET BAND 3 • IELTS Band 4.5 – 5.0 • TOEFL Paper – Based Test (477 – 510) • TOEFL Computer – Based Test (153 – 180) • TOEFL Internet – Based Test (53 – 64) • PTE (Academic) – (29 - 41) 	<ul style="list-style-type: none"> • MUET BAND 4 • IELTS Band 5.5 – 6.0 • TOEFL Paper – Based Test (513 – 547) • TOEFL Computer – Based Test (183 – 210) • TOEFL Internet – Based Test (65-78) • PTE (Academic) – (42 – 57) • FCE (B & C) • GCE A Level (English) (Minimum C) • IGCSE/GCSE (English) (A, B & C) 	<ul style="list-style-type: none"> • MUET BAND 5 & BAND 6 • IELTS Band 6.5 – 9.0 • TOEFL Paper – Based Test (550 – 677) • TOEFL Computer – Based Test (213 – 300) • TOEFL Internet – Based Test (79 – 120) • PTE (Academic) (58 – 90) • FCE (A) • GCE A Level (English) (B & A)
Students need to complete 2 courses (2 courses x 2 credits each) from this PATH	Students need to complete 2 courses (2 courses x 2 credits each) from this PATH	Students need to complete 2 courses (2 courses x 2 credits each) from this PATH	Students need to complete 2 courses (2 courses x 2 credits each) from this PATH
<u>COMPULSORY</u>	<u>COMPULSORY</u>	<u>COMPULSORY</u>	
<ul style="list-style-type: none"> • GLT1018 – Proficiency in English I 	<ul style="list-style-type: none"> • GLT1021 – Proficiency in English II 	<ul style="list-style-type: none"> • GLT1024 – Proficiency in English III 	<ul style="list-style-type: none"> • GLT1027– Advanced Oral Communication* • GLT1028 – Advanced Business Writing*
** CHOOSE ONE : <ul style="list-style-type: none"> • GLT1019 – Let's Speak • GLT1020 – Fundamental Writing 	** CHOOSE ONE : <ul style="list-style-type: none"> • GLT1022 – Speak Up • GLT1023 – Effective Workplace Writing 	** CHOOSE ONE : <ul style="list-style-type: none"> • GLT1025 – Effective Oral Communication • GLT1026 – Writing at the Workplace 	*(Students can only register for one course per semester)

**** Kursus ini mempunyai Pra Syarat dan hanya boleh didaftarkan selepas pelajar LULUS kursus WAJIB mengikut Path yang ditetapkan.**

These courses have prerequisites and students can only register for them after obtaining a PASS in the compulsory course as stipulated in the respective PATH

Note:

2 credit English courses will only be offered for session intake 2021/2022 with new programme structure (Bachelor of Science in Architecture, Bachelor of Real Estate, and Bachelor of Urban and Regional Planning)

DESCRIPTION OF UNIVERSITY ENGLISH LANGUAGE COURSES

NO.	CODE & TITLE (NO. OF CREDITS)	SYNOPSIS	LEVEL OF REQUIRED PROFICIENCY
1.	GLT1018 - Proficiency in English I <ul style="list-style-type: none"> • 2 Credits • Offered in Semesters 1 & 2 	This course is designed for students with basic proficiency in English. Focus is on building speaking and reading competence with an emphasis on accuracy in grammar and on vocabulary building. Students will develop structural accuracy, reasonable oral fluency and language appropriateness by practising the language in a variety of contexts.	CEFR A2+ <ul style="list-style-type: none"> • MUET BAND 2 • IELTS Band 4.0 • TOEFL Paper – Based Test (437 – 473) • TOEFL Computer – Based Test (123 – 150) • TOEFL Internet – Based Test (41 – 52) • PTE (Academic) – (10 – 28)
2.	GLT 1019 - Let's Speak <ul style="list-style-type: none"> • 2 Credits • Offered in Semesters 1 & 2 • Prerequisite: Students must pass GLT1018 (Proficiency in English I) with grade C 	This course focuses on preparing a speech in English accurately and coherently. It also develops students' speech planning skills in stages. Students will learn to speak accurately using the appropriate language strategies to a selected audience.	CEFR B1 <ul style="list-style-type: none"> • Pass GLT1018 with grade C
3.	GLT 1020 - Fundamental Writing <ul style="list-style-type: none"> • 2 Credits • Offered in Semesters 1 & 2 • Prerequisite: Students must pass GLT1018 (Proficiency in English I) with grade C 	This course is designed for students with a pre-intermediate level of proficiency in English. It focuses on writing skills, with an emphasis on accuracy in grammar and vocabulary building. Students will be exposed to writing strategies that will enable them to write short texts effectively for different purposes.	CEFR B1 <ul style="list-style-type: none"> • Pass GLT1018 with grade C

NO.	CODE & TITLE (NO. OF CREDITS)	SYNOPSIS	LEVEL OF REQUIRED PROFICIENCY
4.	GLT 1021- Proficiency in English II <ul style="list-style-type: none"> • 2 Credits Offered in Semesters 1 & 2	This course is designed to improve students' English Language proficiency in terms of accuracy and language use at the intermediate level. Students will be exposed to a variety of reading texts in order to improve their reading skills. They will also be given ample speaking practice to develop their confidence in communicating and interacting with others in a multitude of situations. The course improves students' skills in writing texts coherently on various topics.	CEFR B1 <ul style="list-style-type: none"> • MUET BAND 3 • IELTS Band 4.5 – 5.0 • TOEFL Paper – Based Test (477 – 510) • TOEFL Computer – Based Test (153 – 180) • TOEFL Internet – Based Test (53 – 64) • PTE (Academic) – (29 - 41)
5.	GLT1022 – Speak Up <ul style="list-style-type: none"> • 2 Credits • Offered in Semesters 1 & 2 Prerequisite: Students must pass GLT1021 (Proficiency in English II) with grade C	This course focuses on speaking English accurately and coherently at the intermediate level. It develops students' communication strategies that enable them to interact appropriately in a variety of informal situations.	CEFR B1+/ Low B2 Pass GLT1021 with grade C
6.	GLT1023 - Effective Workplace Writing <ul style="list-style-type: none"> • 2 Credits • Offered in Semesters 1 & 2 Prerequisite: Students must pass GLT1021 (Proficiency in English II) with grade C	This course introduces writing strategies at the intermediate level. Students will be exposed to a range of workplace communication. They will learn how to produce effective written communication and improve their overall skills in writing.	CEFR B1+/ Low B2 Pass GLT1021 with grade C

NO.	CODE & TITLE (NO. OF CREDITS)	SYNOPSIS	LEVEL OF REQUIRED PROFICIENCY
7.	GLT1024 - Proficiency in English III Offered in Semesters 1 & 2	This course is designed to fortify students' English Language proficiency in terms of accuracy and effectiveness at a developing upper intermediate level. Students will be taught the four language skills with a focus on reading, writing and speaking. They will be exposed to a variety of texts to develop a higher level of proficiency that will allow them to apply the skills learnt.	CEFR B2 <ul style="list-style-type: none"> • MUET BAND 4 • IELTS Band 5.5 – 6.0 • TOEFL Paper – Based Test (513 – 547) • TOEFL Computer – Based Test (183 – 210) • TOEFL Internet – Based Test (65-78) • PTE (Academic) – (42 – 57) • FCE (B & C) • GCE A Level (English) (Minimum C) • IGCSE/GCSE (English) (A, B & C)
8.	GLT1025 - Effective Oral Communication <ul style="list-style-type: none"> • 2 credits • Offered in Semesters 1 & 2 Prerequisite: Students must pass GLT1024 (Proficiency in English III) with grade C	The course encompasses different aspects of oral communication used in delivering speeches and presentations at the high intermediate level. Appropriate examples from a variety of situations are used as practice materials for students to analyse, discuss and apply the strategies taught.	CEFR B2+/ Low C1 Pass GLT1024 with grade C
9.	GLT1026 - Writing at the Workplace <ul style="list-style-type: none"> • 2 Credits • Offered in Semesters 1 & 2 Prerequisite: Students must pass GLT1024 (Proficiency in English III) with grade C	This course will introduce students to effective writing skills at the workplace. Using relevant materials, students will be taught in stages how to produce documents within a workplace context.	CEFR B2+/ Low C1 Pass GLT1024 with grade C

NO.	CODE & TITLE (NO. OF CREDITS)	SYNOPSIS	LEVEL OF REQUIRED PROFICIENCY
10.	GLT1027 Advanced Oral Communication <ul style="list-style-type: none"> • 2 Credits Offered in Semesters 1 & 2	The course encompasses different aspects of oral communication used in delivering speeches and presentations at the high intermediate level. Appropriate examples from a variety of situations are used as practice materials for students to analyse, discuss and apply the strategies taught.	CEFR C1 <ul style="list-style-type: none"> • MUET BAND 5 & BAND 6 • IELTS Band 6.5 – 9.0 • TOEFL Paper – Based Test (550 – 677) • TOEFL Computer – Based Test (213 – 300) • TOEFL Internet – Based Test (79 – 120) • PTE (Academic) (58 – 90) • FCE (A)
11.	GLT1028 Advanced Business Writing <ul style="list-style-type: none"> • 2 Credits Offered in Semesters 1 & 2	This course is designed to equip students with the necessary writing skills to meet the needs of the workplace. Students will also be taught how to produce clear, accurate and well organised professional business documents. Students will be required to analyse and respond to a variety of situations and to write for identified audiences. The course also explores the ways in which technology helps shape business writing and communication	GCE A Level (English) (B & A)

SOFT SKILLS DEFINITION

COMMUNICATION SKILLS

CS1	The ability to present ideas clearly, effectively and confidently, in both oral and written forms
CS2	The ability to practice active listening skills and provide feedback
CS3	The ability to present clearly with confidence and appropriate to the level of the listener
CS4	The ability to use technology in presentations
CS5	The ability to negotiate and reach an agreement
CS6	The ability to communicate with others from different cultures
CS7	The ability to develop interpersonal communication skills
CS8	The ability to use non-verbal skills

CRITICAL THINKING AND PROBLEM SOLVING SKILLS

CT1	The ability to identify and analyse problems in complex and vague situations, as well as to make justified evaluations
CT2	The ability to develop and improve thinking skills such as to explain, analyse and evaluate discussions
CT3	The ability to find ideas and alternative solutions
CT4	The ability to think out of the box
CT5	The ability to make decisions based on concrete evidence
CT6	The ability to persevere as well as to fully concentrate on given task
CT7	The ability to understand and to fit in with the culture of the community and new work environment

TEAM WORK SKILLS

TS1	The ability to build good relations, interact with others and work effectively with them to achieve the same objectives
TS2	The ability to understand and interchange roles between that of a team leader and a team member
TS3	The ability to recognize and respect the attitude, behaviour and beliefs of others
TS4	The ability to contribute towards the planning and coordination of the team's efforts
TS5	Be responsible for the group's decision

LIFE LONG LEARNING AND INFORMATION MANAGEMENT	
LL1	The ability to search and manage relevant information from different sources
LL2	The ability to accept new ideas and the capability for autonomous learning
LL3	The ability do develop a curious mind and the thirst for knowledge
ENTREPRENEURIAL SKILLS	
KK1	The ability to identify business opportunities
KK2	The ability to outline business frameworks
KK3	The ability to build, explore and seize business and work opportunities
KK4	The ability to work independently
PROFESSIONAL ETHICS AND MORAL	
EM1	The ability to recognize the effects on the economy, environment and socio culture in professional practice
EM2	The ability to analyse and make decisions in solving problems related to ethics
EM3	The ability to practice ethically, apart from being responsible towards the society
LEADERSHIP SKILLS	
LS1	Knowledge of basic leadership theory
LS2	The ability to lead a project
LS3	The ability to understand and interchange roles between that of a team leader and a team member
LS4	The ability to supervise team members

GENERAL INFORMATION

STUDENT AWARDS

Student Awards	Notes
Universiti Malaya Book Prize	Awarded to graduates who have completed the undergraduate programmes with an honours degree (With Distinction) and a final CGPA of 3.70 and above.
The Royal Institution of Chartered Surveyors (RICS) Book Prizes	Awarded for the best penultimate year undergraduates of the RICS accredited courses. Bachelor of Building Surveying (Hons), Bachelor of Quantity Surveying (Hons) and Bachelor of Real Estate (Hons).
The Royal Institution of Surveyors Malaysia (RISM) Gold Medal Award	Awarded to graduates from the Surveying discipline who have achieved academic excellence, displayed positive personal characteristics, and are also active in co-curriculum activities.
Royal Education Award	<ul style="list-style-type: none"> • Has obtained in a final semester at least a Pass with Honours (with Distinction) with a final CGPA of 3.70 and above or Pass the Final Year Examination with at least grade A+ for Bachelor of Medicine and Bachelor of Surgery (MBBS) and Bachelor of Dental Surgery (BDS); • Has never obtained grade F and/or grade U for any courses; • Has never repeated any course for the purpose of improving a grade; • Has successfully completed this program of study within the minimum period prescribed for his program unless has been approved withdrawal from any semester but not include in the period of study by the University; • Active in co-curricular activities and obtained prizes based on the excellent academic achievement and co-curricular activities; • Has never been convicted on any disciplinary offence under any disciplinary rules; • No outstanding debt to the University.
Professor Ezrin Arbi's prize	Awarded to a graduates with the highest score in CGPA. Recipient may be selected from the various disciplines offered by the Faculty at the undergraduate level.

Student Awards	Notes
The Board of Quantity Surveyors Malaysia (BQSM) Best Dissertation Award	Awarded by BQSM to a QS graduate who produces the best Academic Project and who have completed the undergraduate programme with a First Class Honours degree OR and Honours degree (With Distinction).
Tan Sri Abdul Rahim Excellence Award	Awarded to graduated who have completed the degree of Bachelor of Real Estate with an Honours degree (With Distinction) and a final CGPA must achieve 3.70 and above and also active in co-curriculum activities.
Puan Sri Datin Seri Nila Inangda Manyam Keumala Excellence Award	Awarded to graduated who have completed the degree of Bachelor of Science in Architecture with an Honours degree (With Distinction) and a final CGPA must achieve 3.70 and above and also active in co-curriculum activities.

IMPORTANT INFORMATION

1. APPLICATION FOR TRANSFER AND EXEMPTION OF CREDIT

- (a) An application for transfer or exemption of credit shall be made by using the prescribed form that can be obtained from the main office. Completed forms must be submitted to the Dean no later than the Friday on the second week of lectures of Normal Semester together with:
 - (i) The payment of the processing fees at a prescribed rate. These fees are non-refundable;
 - (ii) The syllabus and marking system of the course for which transfer or exemption of credit is applied; and
 - (iii) A copy of the certificate/ diploma/ degree concerned.
 - (b) The maximum total of credit hours that may be transferred or exempted shall not exceed one- third of the total credit hours of the programme of study concerned.
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2. DEAN'S LIST

A student who obtains a GPA of 3.7 and above in any Normal Semester and fulfils the following conditions shall be recorded with a "Pass with Distinction" for the Semester concerned:

- (i) Had taken and sat for the examinations of courses totalling a minimum of 15 credits hours in the Normal Semester concerned consisting a minimum of four courses, not including courses with Grade S as a pass;
 - (ii) Had obtained no lower than a grade C for any course taken in the semester concerned; and
 - (iii) Did not repeat any course in the semester concerned.
-

3. AWARD OF A DEGREE

- (a) The Degree will be awarded is an honours degree based on the final CGPA and must obtain a final CGPA of not less than 2.0.
 - (b) A student is qualified for the award of a degree of a Pass with Honours (With Distinction) if:
 - (i) Achieves a final CGPA of 3.7 and above;
 - (ii) Has never obtained Grade F for any course for the duration of his programme of study; and
 - (iii) Has successfully completed his programme of study within the prescribed duration.
-

4. COURSE AND TEACHING EVALUATION SYSTEM (CTES)

- (a) It is compulsory for all first degree students to evaluate the courses registered in the current semester. The evaluation can be done by logging into <http://umctest.um.edu.my> using siswa mail account.
 - (b) Students who fail to complete the CTES within specified time will be barred from getting the semester examination results and from registering for courses in the next semester.
-

5. ASSESSMENT AND EXAMINATIONS

Grades can be awarded based on continuous assessment, examination and a combination of both. Students should be aware that the components of assessment methods may differ based on the requirements of each subject.

6. COURSE REGISTRATION

- (a) A student is required to register for the course within the period prescribed.
- (b) Registration for any course must be completed before the start of a semester. Any student who does not complete his registration within the duration prescribed will not be allowed to pursue the course concerned.
- (c) The maximum number of credits which can be registered by a student is not exceeding 22 credits in the Normal Semester and 11 credits in the Special Semester. For students under the Academic Probationary Period, the maximum number of credits that can be registered by a student is not exceeding 15 credits in the Normal Semester and 9 credits in the Special Semester.
- (d) All students must register the courses every semester through <http://maya.um.edu.my>

7. ATTENDANCE IN PROGRAMME OF STUDY

- (a) It is compulsory for a student to attend all teaching and learning activities related to his programme of study.
- (b) A student who does not attend any teaching and learning activities is required to inform the reason for his absence to the teacher immediately together with the relevant supporting documents. The teacher shall inform the student of the consequences of being absent and is responsible to keep the records of the notification and class attendance.

8. APPEAL AGAINST EXAMINATION RESULTS

- (a) A student who is not satisfied with his examination results including the continuous assessment component and/or final examination of the course may appeal for a review of his examination results. The appeal shall be made within one (1) week from the official date of announcement of his examination results.
 - (b) A payment based on the prescribed rate shall be made to process the application for examination results to be reviewed. The payment made is non-refundable regardless whether the appeal is successful or otherwise.
 - (c) The appeal shall be made in a prescribed form by the University. The completed form shall be submitted to the Dean of the Faculty together with a copy of the receipt of the payment for the appeal made.
-

9. GRADING SCHEME

The official University grades including the marks and their meaning are as follows:

Grade	Marks	Grade Point	Meaning
A+	90 — 100	4.0	High Distinction
A	80 — 89	4.0	Distinction
A–	75 — 79	3.7	Distinction
B+	70 — 74	3.3	Good
B	65 — 69	3.0	Good
B–	60 — 64	2.7	Good
C+	55 — 59	2.3	Pass
C	50 — 54	2.0	Pass
C–	45 — 49	1.7	Fail
D+	40 — 44	1.3	Fail
D	35 — 39	1.0	Fail
F	0 — 34	0.0	Fail

The passing grade for all courses is grade C.

Please refer to **Universiti Malaya** (Bachelor's Degree) Rules & Regulations 2019 in Student Portal (MYUM Portal)

10. LIBRARY AND OTHER FACILITIES

The Universiti Malaya Library established since 1962 in Kuala Lumpur is a network of 13 Libraries, fully computerized and integrated in its operation and services. The Built Environment Library is one of the special subject libraries in the Universiti Malaya Library network. Prior to 2003, the collections were kept in the Engineering Library, at the Faculty of Engineering. At the present location, the Built Environment Library is conveniently located for access and is open to all students during office hours. The library is manned by two full-time staff members and one senior librarian which covers a floor space of about 835 sq. meters with seating capacity for 133 students.

The Library's core function is to support the learning, teaching and research needs of undergraduate, postgraduate students, and the academic staff and researchers of the Faculty of Built Environment. However, it is also opened to other registered users of the Universiti Malaya Library network, subject to some limitation in borrowings.

The collection gives priority on the learning and teaching programme of the Built Environment Faculty especially in the areas of architecture, real estate, quantity surveying, building surveying and urban planning. The library materials include both primary and secondary sources, such as books, journals, reference books, dissertation and theses, conference proceedings and electronic resources. The library online catalogue, known as Pendeta Discovery is a union catalogue of the Universiti Malaya Library network which provides access to holdings of collection of materials and can be accessed by others via the Internet.

Library Collections

- **General**

The Library has a general collection of about 14,500 items consisting of textbooks, reference books, and handbooks, journals, CD-ROM and etc.

- **Dissertations, Theses and Academic Exercises**

This ever expanding collection consists of works produced by undergraduate and postgraduate students of the Faculty.

- **Conference Papers**

Papers presented by the academic staff at the seminars or conferences especially held in Malaysia are continually collected and indexed in an index database known as iMalaysiana Collection.

- **Journal, Online databases and e-Books**

The Library subscribes to printed journals, online databases - mostly full text journals and e-books, which can be accessed via the campus network and remote access from individual homes of registered users.

Some available online databases related to the built environment are RIBA e-books, IEEE Xplore, Art & Architecture Complete @EBSCOHOST, Science Direct, Springer Link, etc.

Library Services

- **Loans, Online Renewal and Reservation**

Most books are allowed borrowings, except the Reference and special collection such as dissertation/theses and conference proceedings. The library-computerized system allows online renewal by the individual by each patron; and also reservation of books when materials on loan to other users.

- **Discussion Area (“Ruang Bicara”)**

This Discussion Area is located beside the library office and accommodates with 16 seats. This area is spacious and very interesting for any discussion and meeting. It is open to anyone who is interested and users only need to make a reservation at counter services. Projectors are also provided for teaching and learning facilities.

- **Books Donation Corner (by Faculty Members)**

This corner was initiated by faculty members to keep books donation as a library collection. All of these materials can be referred and borrowed.

- **Inter-library loan and Document Supply Services**

Inter-library loan facilities and document delivery services are available for postgraduate students, researchers and academic staff of the Faculty of Built Environment. Requests to these services are facilitated via the Library interactive

portal, which can be submitted to the Library management electronically. A special budget is allocated for this purpose with deposit accounts established at the British Library (U.K) and National University of Singapore (Singapore).

- **Access to Other Resource Centres in Malaysia**

Registered students and academic staff of the Universiti Malaya are allowed to visit and use (for reference only) other academic / public university libraries in Malaysia, as a part of the resource sharing programme.

- **Information Literacy (GIG1004)**

Besides that, the library conducts a formal compulsory course for first year undergraduate called Information Literacy (GIG1004) to equip them with the skills on information retrieval and access to resources.

- **User Education Session**

The postgraduate students, academic staff and researchers of the Faculty are given special user education session; to cater for information needs at a regular basis to familiarize them with the use of library resources and library catalogue (Pendeta Discovery), Endnote Management Software and online databases subscribed.

- **Reference and Information Enquiries**

A librarian will assist and guide users with searching information for the collection, online database subscribed, internet or from other institutions. For further information do contact Encik Muhamad Faizal Abd Aziz at 03-79676802 or email at mfaizal@um.edu.my

- **Opening Hours**

Monday - Friday	8.30 am – 5.30 pm
Closed on Saturday, Sunday and Public Holidays.	

Note: Operating hours are subjected to COVID-19 SOP and updates

STUDENT FACILITIES

- **Self-Photocopying Machines**

Photocopying services operated by commercial contractors are provided in the Library and cards can be purchased at the Service Counter.

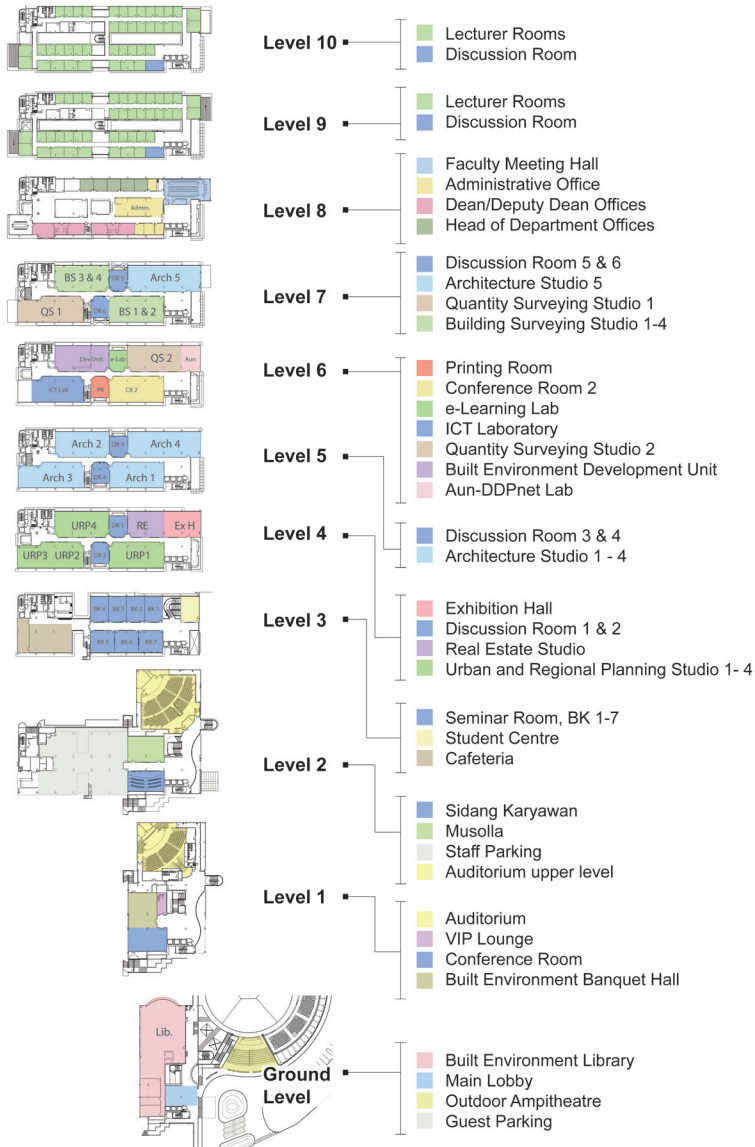
- **Computers (PC)**

Computers with Internet connections are provided for use in the Library for searching information from Library resources and other online databases subscribed by the Library.

-
- **Student Centre**
Located at Level 3, Mercu Alam Bina was designed to give students space for study and relaxation between classes.
 - **Surau/Musolla (Praying Room)**
Located at the second floor of Mercu Alam Bina for both male and female.
 - **WIFI**
Access is available within the building with a number of access points.
 - **Vending Machines**
Available on selected floors.
 - **Centralised and Special Computer Laboratories**
The general computer laboratory is a centralised facility for all students of the Faculty. The facilities include desktop publishing and image editing. The special computer laboratory is for teaching purposes that include facilities for 2D draughting, 3D modelling and simulation. All the computers are networked within the Faculty's area network and are linked to the Internet.
 - **Centralised Workshop**
A Model-Making Workshop that has 100m² floor area is available for students to make architecture models and construct small-scale objects. The workshop, equipped with hand and power tools for model-making with wood, plastics and metal, is open during normal working hours for use by all students of the faculty. Some equipment are available for loan outside operating hours. One full-time technician supervises the workshop activities and provides hand-on training and assistance to students.
 - **Centralised Laboratories**
There are three centralized laboratories within the Faculty buildings that support the lecturers and students in teaching and research activities. These are Physics, Building Laboratories and Digital Crafting Lab. The labs offer advanced practical, research and model-making facilities with state-of-the-art machines and equipment, under the supervision of experienced academic and technical staff.
In addition, students have access to more specialized laboratories in Engineering and Science Faculties.
 - **Cafe**
The faculty's café is located at level 3 and is open during office hours on weekdays.
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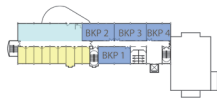
11. FACULTY LAYOUT

FACULTY OF BUILT ENVIRONMENT: Mercu Alam Bina building

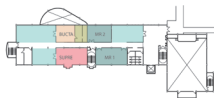




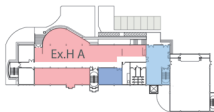
- Level 4**
- Studio
 - Research Offices



- Level 3**
- Post Graduate Room, BKP 1 - 4
 - Post Graduate Lounge
 - Offices



- Level 2**
- Research Lounge
 - Centre for Building, Construction and Tropical Architecture, BUCTA
 - Centre for Sustainable Urban Planning and Real Estate, SUPRE
 - CORE Room
 - Meeting Room 1 & 2



- Level 1**
- Staff Parking
 - Main Lobby
 - Exhibition Hall A
 - Discussion Area



- Upper Ground Level**
- Office



- Ground Level**
- Modeling Workshop
 - Building Surveying Lab
 - Environmental Physics Lab
 - Digital Fabrication Lab
 - Office

ARCHITECTURE

ARCHITECTURE

Introduction

The Architecture Department was first initiated as a programme under the Faculty of Engineering, Universiti Malaya, with 26 students enrolled in the semi-professional Bachelor of Science in Architecture course in May 1995. In July 1997, the programme was reorganised and upgraded into the Department of Architecture. The Bachelor of Architecture programme, a professional course, was introduced in 1998 and later upgraded in 2013 into the Master of Architecture in line with the requirements of the Board of Architects, Malaysia (LAM). Today both the Architecture programmes offered by the Department are accredited by the Board of Architects Malaysia and the Royal Institute of British Architects (RIBA), UK.

The Department has three niche areas: Green and Sustainable Architecture, Architectural Heritage and Conservation, and Community and Urban Architecture. These three niches are emphasised in both the undergraduate and postgraduate programmes to produce graduates who fulfil professional and community needs.

Programme Aims

The aims are as follows:

- To promote interest, knowledge and skills in architectural design that is sensitive to the cultural and environmental contexts.
- To develop analytical and problem-solving capabilities.
- To nurture the ability to design comprehensively, creatively and with technical competence.
- To understand the scientific principles which form the foundation of building technology.
- To produce graduates with semi-professional and professional degrees who will practise architecture confidently and responsibly.

These objectives are in line with the University's aspiration to become the premier university in the region.

Programme Learning Outcomes

At the end of the programme, graduates are able to:

- PO1** Command adequate knowledge in design, technology, culture, management, practice and law to help in the formation of qualitative 3-dimensional spatial configurations.
- PO2** Use practical skills in creating qualitative 3-dimensional spatial configurations which are planned well and satisfy user needs and local regulations.
- PO3** Demonstrate social skills and responsibility towards the society and the environment in consideration of the needs and wants related to the design process.
- PO4** Practice ethical responsibility, professionalism and integrity in designing qualitative 3-dimensional configurations while considering architectural professional codes and standards.
- PO5** Communicate clearly using suitable media (visual, verbal and written) and show leadership traits and teamwork in delivering ideas and design proposals effectively or in evaluating it critically.
- PO6** Utilize scientific skills to solve architectural design problems by incorporating knowledge of building technology principles, environmental design and construction methods for the entire human race and natural wellbeing.
- PO7** Utilize ICT management skills and practice lifelong learning concepts by referring to varied source of materials to achieve in-depth knowledge as part of design process.
- PO8** Apply management and entrepreneurial skills in the context of professional architectural practice within the framework of the construction industry and understand business operation methods.

Programme Structure

Bachelor of Science in Architecture (BSc in Architecture)

(6 Semesters and 2 Special Semesters)

The BSc in Architecture programme constitutes the first tier of a two-tier system. The programme provides a solid academic foundation for those who wish to pursue professional architecture qualification. It is an intensive 3-year undergraduate course in architectural studies with the aim of getting an exemption from both LAM Part I (Malaysia) and RIBA Part I (UK).

Design is the core subject taught across several subjects as part of the integrated learning and knowledge acquisition. It forms the basic framework for an appropriate architectural foundation. The programme is further enriched by practical knowledge gained from industrial attachment. The BSc in Architecture operates under the semester system for six full semesters and two special semesters, covering 120 credits.

The BSc in Architecture course is also programmed as a stand-alone undergraduate course that can sufficiently function as an independent course, that is, instead of continuing with the Master of Architecture (MArch) programme, graduates may venture into other related fields. For example, the BSc in Architecture qualification will enable graduates to work as architectural assistants in architectural firms, contractors, or developers in the private sector, as schoolteachers, lecturers at polytechnics or technical colleges, or technical administrators in government departments and agencies, designers, product makers and many more.

The BSc Architecture programme has received recognition from the Malaysian government, Part 1 Qualification from both the Malaysian Board of Architects (LAM) since 2003 and the Royal Institute of British Architects (RIBA) since 2005. The programme also contains inbound and outbound mobility programmes with regional and international universities that encourages cross-boundary learning and credit transfers between selected subjects taught in the programme. The universities which the mobility programmes have been carried out in the past include *National University of Singapore* (NUS) of Singapore, *Institut Teknologi Bandung* (ITB) and *Universitas Katolik Parahyangan* (UNPAR) of Indonesia and *Kyung Hee University* (KHU) of Korea.

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 Director of Pakatan Reka Arkitek.

BACHELOR OF SCIENCE IN ARCHITECTURE CURRICULUM STRUCTURE FOR 2021/2022 ACADEMIC SESSION

Program Cluster	No	Code	Course Name	Level 1			Level 2			Level 3			Total credit	Pre-requisite
				S1	S2	S3	S1	S2	S3	S1	S2	S3		
Design (60 credits - 50%)	1	BIA1020	Architectural Design Studio I	10										BIA1020 BIA1025 BIA2020 BIA2025 BIA2025 BIA3020
	2	BIA1025	Architectural Design Studio II		10									
	3	BIA2020	Architectural Design Studio III				10							
	4	BIA2025	Architectural Design Studio IV					10						
	5	BIA3020	Architectural Design Studio V							10				
	6	BIA3025	Architectural Design Studio VI								10		60	
Culture and Context (10 credits - 8.33%)	7	BIA1022	History of Asian Architecture	2										BIA1021
	8	BIA1027	History of World Architecture		2									
	9	BIA3021	Culture and Context							3			10	
Technology and Environment (19 credits - 15.83%)	10	BIA1021	Materials and Construction I	3										
	11	BIA1026	Environmental Physics		3									
	12	BIA2021	Materials and Construction II				3							
	13	BIA2022	Building Structure				2							
	14	BIA2023	Digital Architecture				3							
	15	BIA2026	Building Services					2					19	
Research, Management and Practice (13 credits - 10.83%)	16	BIA3022	Architectural Academic Report							3				
	17	BIA3026	Professional Studies								3			
	18	BIA3027	Working Drawing								3			
	19	BIA3028	Industrial Training									4	13	
Program Electives (6 credits)	20	BIA2027 / BIA2028	* Measured Drawing / Landscape Architecture						3					
	21	BIA2029 / BIA2030	** Architectural Lighting and Acoustics / Digital Fabrication					3					0	

Program Cluster	No	Code	Course Name	Level 1			Level 2			Level 3			Total credit	Pre-requisite
				S1	S2	S3	S1	S2	S3	S1	S2	S3		
University Courses (18 credits - 15%)	22	GLT xxxx	English I	2										
	23	GLT xxxx	English II		2									
	24	GIG1012/ *** GLT1017	Philosophy and Current Issues (FIS)/ *** Basic Malay Language					2						
	25	GIG1013	Appreciation of Ethics and Civilisations (PEP)					2						
	26	GIG 1003	Basic Entrepreneurship Culture							2				
	27		Co-curriculum		2									
	28		Student Holistic Empowerment 1	2										
	29		Student Holistic Empowerment 2							2				
	30		Student Holistic Empowerment 3								2		18	

* Elective subject (Culture and Context)

** Elective subject (Technology and Environment)

*** Courses offered to non-Malaysian students

Total Credit	19	19	0	18	19	3	20	18	4	120
Total Core Subjects	3	3	0	4	2	0	3	3	1	19
Total Department Electives	0	0	0	0	1	1	0	0	0	2
Total University Courses	2	2	0	0	2	0	2	1	0	9
Total Courses	5	5	0	4	5	1	5	4	1	30

TOTAL CREDITS: 120

Note: The program structure can be subjected to change

LIST OF COURSES ACCORDING TO SEMESTER YEAR 1

COMPONENT	SEMESTER 1		SEMESTER 2		SEMESTER 3		TOTAL CREDIT
	COURSE CODE	CREDIT	COURSE CODE	CREDIT	COURSE CODE	CREDIT	
Compulsory University Courses	GLTxxxx (English I)	2	GLTxxxx (English II)	2			4
			Co-Curriculum	2			2
Program Core Courses	BIA1020 BIA1021 BIA1022	10 3 2	BIA 1025 BIA 1026 BIA 1027	10 3 2			30
Elective Courses	SHE 1	2					2
Total credits		19		19			38

YEAR 2

COMPONENT	SEMESTER 1		SEMESTER 2		SEMESTER 3		TOTAL CREDITS
	COURSE CODE	CREDIT	COURSE CODE	CREDIT	COURSE CODE	CREDIT	
Compulsory University Courses			GIG1012 / GLT1017	2			2
			GIG1013	2			2
Program Core Courses	BIA2020 BIA2021 BIA2022 BIA2023	10 3 2 3	BIA2025 BIA2026	10 2			30
Elective Courses			BIA2029 / BIA2030	3	BIA2027 / BIA2028	3	6
Total credits		18		19		3	40

YEAR 3

COMPONENT	SEMESTER 1		SEMESTER 2		SEMESTER 3		TOTAL CREDITS
	COURSE CODE	CREDIT	COURSE CODE	CREDIT	COURSE CODE	CREDIT	
Compulsory University Courses	GIG1003	2					2
Program Core Courses	BIA3020 BIA3021 BIA3022	10 3 3	BIA3025 BIA3026 BIA3027	10 3 3	BIA 3028	4	36
Elective Courses	SHE 2	2	SHE 3	2			4
Total credits		20		18		4	42

TOTAL CREDITS: 120

Note: The program structure can be subjected to change

PROGRAMME CORE COURSES

BIA1020

ARCHITECTURAL DESIGN STUDIO I

10 credits

Synopsis of Course Contents

The course is an introduction to basic design, emphasizing using various media to explore the concept of space and form. Through a series of design studies, students will learn, understand, analyze and apply basic design principles and elements within architectural design representations.

Learning Outcomes

After the course students shall be able to:

1. Identify the fundamentals and principles of design through architectural vocabulary.
2. Explain the ideas and concept of design composition.
3. Translate the knowledge of design fundamentals and principles into concept and idea through two-dimensional illustrations and three-dimensional physical models.
4. Justify architectural design elements
5. Identify the significance of human anthropometrics.
6. Apply ergonometry in architectural design.
7. Manipulate basic forms to create a composition of spaces.
8. Propose a schematic design proposal of a small-scale design project of 'space for one or two users'

Assessment:

Continuous Assessment 100%

Soft Skills: CLS1, CLS3a, CLS3b

BIA1025

ARCHITECTURAL DESIGN STUDIO II

10 credits

Synopsis of Course Contents

This course strengthens basic design knowledge and vocabulary introduced previously, where a series of design projects would highlight the importance of the design process. Projects would concentrate on form-making, and would revisit ideas of basic design elements (linear, planar, volume, addition / subtraction, interlocking space etc.) and enclosure and include architectonic aspects such as entrances, fenestrations, overhead enclosure / roof, furniture etc.

Learning Outcomes

At the end of the course, students can:

1. Identify basic structural systems and building design principles.
2. Identify basic skills in computer drafting and graphic presentation through basic exercises.
3. Study design principles and vocabularies through studio project
4. Describe architectural elements and language through the study of selected architectural precedents.
5. Describe basic structural design of a small-scale architectural project.
6. Present preliminary site observation and analysis on a selected site.

7. Apply basic structural knowledge in the design of a small-scale building typology.
8. Construct a small structure with considerations of design idea, materials, joinery techniques and finishes.
9. Illustrate the proposed furniture/structure using digital design drawings.
10. Apply knowledge learned in the design of a small-scale building typology on a selected site.

Assessment:

Continuous Assessment 100%

Soft Skills: CLS1, CLS3a, CLS3b

BIA2020

ARCHITECTURAL DESIGN STUDIO III

10 credits

Synopsis of Course Contents

This course allows students to further build and strengthen skills by using an experiential 'master-apprentice' studio-based learning approach. The student is given two assignments based on a brief and program, to complete a final set of drawings and models, graphically and verbally presented. The design process requires the students to practice an approach of:

- combining architectural elements
- putting together a scheme
- conceptualising
- application of architectural theory

This course also provides learning on the architectural theories and themes for this semester, which is:

- architectural representation
- architectural language
- form
- space
- context

Learning Outcomes

At the end of the course, students can:

1. Define architectural theory principles and themes.
2. Review different architectural precedents through studies of plans, sections, as well as other relevant drawings and refer to prominent architects to explore alternative ideas and concepts in the design process.
3. Perform site survey and measure proposed building site
4. Illustrate knowledge from precedents studies into a small single and dual function building design through conceptual exploration on a hypothetical site.
5. Apply architectural theory principles, themes and good building design practice into architectural design.
6. Propose design according to building type and function through a series of design process.
7. Determine the elements, scheme, and concept of an architectural project.
8. Describe good building design practice with emphasis to space and form design.

9. Design a building not more than two storeys high which has mainly a public function and ancillary spaces, as stated in the given brief.

Assessment:

Continuous Assessment 100%

Soft Skills: CLS3a, CLS3b, CLS3d

BIA2025

10 credits

ARCHITECTURAL DESIGN STUDIO IV

Synopsis of Course Contents

This course allows students to further build and strengthen skills by using an experiential 'master-apprentice' studio-based learning approach. The student is given two assignments based on a brief and program, to complete a final set of drawings and models, graphically and verbally presented. The design process requires the students to practice an approach of:

- combining architectural elements,
- putting together a scheme, and
- conceptualising.

The architectural design program provides learning on the sustainable design theory and principles for this semester, which is:

- elements – site elements, topography, vegetation, natural materials, building materials,
- scheme – climatic design ideas, passive energy design principles, building form and function, and
- concepts – vernacular architecture, tropical architectural design, bio-climatic design, ecological and sustainable design.

Learning Outcomes

At the end of the course, students can:

1. Define sustainable design theory and principles.
2. Review precedents and case studies through actual visits to local and international sites by studying plans, sections and other relevant drawings and documents to generate ideas and concepts in the design process.
3. Defend architectural ideas and feasibility of building design proposals.
4. Illustrate design proposal through appropriate architectural graphic and verbal communication.
5. Recognise immediate elements surrounding the site that may influence the design decisions.
6. Apply sustainable design theory and principles including good building design practice into architectural design schemes.
7. Design an infill project with focus on internal planning and contextual issues.
8. Design a building which has multiple functions, not more than two stories high located in an urban area.
9. Generate passive design solutions in a design scheme.

Assessment:

Continuous Assessment 100%

Soft Skills: CLS3a, CLS3d, CLS2

BIA3020

10 credits

ARCHITECTURAL DESIGN STUDIO V**Synopsis of Course Contents**

This course allows students to individually design an institutional building of maximum four storey high which prioritised on the principles of sustainable architecture in a selected urban area through a thorough design process from macro and micro urban studies, site analysis, precedent studies and design requirement adhering to the local authorities' guidelines.

Learning Outcomes

At the end of the course, students can:

1. Recognize the urban fabric of selected town in the aspect of its history, environmental context, economy, social and culture in a group.
2. Analyse the project site of the said urban area encompassing the existing macro and micro context development, climate, infrastructure, traffic and pedestrian network and landscape including the local authority's development guidelines.
3. Appraise the architectural design through precedent study, information on building users, space function, sustainable architecture requirement, design concept and others.
4. Generate the schematic design concept of an institutional building of maximum four storey high through a thorough design process utilizing the information gained from the urban studies, site analysis, precedent studies, design brief and building buildability aspects that complies with the guidelines and regulations of the local authorities.
5. Perform the final design through verbal and multimedia presentation in front of internal and external juries.

Assessment:

Continuous Assessment 100%

Soft Skills: CLS5, CLS3d, CLS2

BIA3025

10 credits

ARCHITECTURAL DESIGN STUDIO VI**Synopsis of Course Contents**

This course allows students to generate a comprehensive design of maximum five storey building including 1 storey basement car park which:

- integrate the urban design principles, sustainable architecture, multi spaces and functions, and precedent studies in design.
- incorporate building technical requirements such as long span structure, buildability, interior architecture, occupants' safety, landscape architecture, building services and local authority's requirements in Uniform Building By-Law (UBBL)

Learning Outcomes

At the end of the course, students can:

1. Analyse project site information, urban design principles and urban studies collected during the previous semester.
2. Appraise the architectural design through precedent study, information on building users, space-function, sustainable architecture requirement, design concept and others.
3. Generate the schematic design of a sustainable institutional building with maximum five storey high including 1 storey basement parking consist of multi spaces and functions through a comprehensive design process.
4. Integrate building technical requirements such as long span structure, buildability, building services and local authority's requirements in Uniform Building By-Law (UBBL)
5. Present final design proposal through verbal and multimedia presentation in front of internal and external juries.
6. Prepare a comprehensive design report including technical building requirements.

Assessment:

Continuous Assessment 100%

Soft Skills: CLS5, CLS3d, CLS2, CLS3c

PROGRAMME COURSES

BIA1021

MATERIALS AND CONSTRUCTION I

3 credits

Synopsis of Course Contents

This course is an introduction to:

- Basic construction materials such as timber, bamboo, masonry and reinforced concrete and construction techniques for 2 storey domestic structures.
- General knowledge on materials defects and preventive measures, basic concept of sustainability in the production, use of materials and construction techniques.

Learning Outcomes

At the end of the course, students can:

1. Identify architectural origins and identity of Asian architecture.
2. Describe the various characteristics of Asian architecture.
3. Relate the development of Asian architecture with Malaysian architecture and their influence.

Assessment:

Continuous Assessment: 40%

Final Examination: 60%

Soft Skills: CLS1, CLS3a

BIA1022

2 credits

HISTORY OF ASIAN ARCHITECTURE**Synopsis of Course Contents**

This course exposes students to:

- The evolution of Asian Architecture based on historical timeline starting from ancient to modern era.
- Asian architectural characteristics covering:
 - o East Asian Architecture
 - o South Asian Architecture
 - o Southeast Asian Architecture
 - o Malaysian Architecture

The influences of Asian architecture towards Malaysian architecture.

Learning Outcomes

At the end of the course, students can:

1. Identify architectural origins and identity of Asian architecture.
2. Describe the various characteristics of Asian architecture.
3. Relate the development of Asian architecture with Malaysian architecture and their influence.

Assessment:

Continuous Assessment: 100%

Soft Skills: CLS1, CLS3b

BIA1026

3 credits

ENVIRONMENTAL PHYSICS**Synopsis of Course Contents**

This course introduces basic knowledge of the relationship between environmental physics and the built environment in determining human comfort, analysing the influence of natural elements and climate on design, the appropriateness of building sitting on site and the problem of heat and wind in the context of micro-climate. It will also review the effectiveness and efficiency of vernacular architectural design, bio-climatic design and passive solar architecture.

Learning Outcomes

At the end of the course, students can:

1. Identify the basic environmental technology in building design.
2. Answer the needs of the user, community, and environment to achieve thermal comfort.
3. Describe the relationship between 'Man, Building and Climate'.

Assessment:

Continuous Assessment: 40%

Final Examination: 60%

Soft Skills: CLS1, CLS3b, CLS2

BIA1027

2 credits

HISTORY OF WORLD ARCHITECTURE**Synopsis of Course Contents**

This course introduces basic knowledge of the relationship between environmental physics and the built environment in determining human comfort, analysing the influence of natural elements and climate on design, the appropriateness of building sitting on site and the problem of heat and wind in the context of micro-climate. It will also review the effectiveness and efficiency of vernacular architectural design, bio-climatic design and passive solar architecture.

Learning Outcomes

At the end of the course, students can:

1. Identify the various architectural development in world architecture history according to historical timeline from prehistoric era to the postmodern era
2. Summarize the architectural development in world architecture history throughout different eras.
3. Describe the various architectural historical developments focusing on various types of architectural styles.
4. Compare the differences and similarities of architecture historical developments in world architecture and Malaysian architecture including their influences.

Assessment:

Continuous Assessment: 100%

Soft Skills: CLS1, CLS3b

BIA2021

3 credits

MATERIALS AND CONSTRUCTION II**Synopsis of Course Contents**

This course provides the learning of construction methods and processes including site clearance, piling, basement, waterproofing systems, metal and concrete composite structures, cladding systems, industrial building systems, infrastructure works and demolition works for medium-rise buildings.

Learning Outcomes

At the end of the course, students can:

1. Explain the process of construction of supporting infrastructures for medium rise building.
2. Describe building components and construction works of buildings with reinforced concrete and steel framed structures.
3. Justify the theoretical and practical aspects of construction through exposure to construction works on site.

Assessment:

Continuous Assessment: 40%

Final Examination: 60%

Soft Skills: CLS3a, CLS3b

BIA2022

2 credits

BUILDING STRUCTURE**Synopsis of Course Contents**

The course expose students to the design of building structure, among the topics covered include:

- Distribution of loads on structural systems
- Structural systems
- Structural design
- Structural analysis

The final assignment is the integration of structure design in a design studio project.

Learning Outcomes

At the end of the course, students can:

1. Describe structural systems of buildings.
2. Present structural forces and loading in a building.
3. Propose basic forces and loading of building structure.

Assessment:

Continuous Assessment: 40%

Final Examination: 60%

Soft Skills: CLS3a, CLS2

BIA2023

3 credits

DIGITAL ARCHITECTURE**Synopsis of Course Contents**

This course provides discussion and information on emerging digital technologies – Building Information Modelling (BIM), Digital Fabrication, Virtual Reality (VR), etc. – used in contemporary and innovative design practice. Students will be exposed with information modelling techniques within digital, physical and/or virtual environments to present and interact with architectural design proposals.

Learning Outcomes

After the course students shall be able to:

1. Identify use of CAD application 2D/3D in architectural design and documentation practice.
2. Build an architectural digital model of an interior or exterior.
3. Manipulate an architectural digital model into systems of rendering and/or visualisation methods.
4. Appraise digital and virtual design processes.

Assessment:

Continuous Assessment: 100%

Soft Skills: CLS1, CLS3d, CLS3c

BIA2026

2 credits

BUILDING SERVICES**Synopsis of Course Contents**

This course introduces the basic needs for building services in modern living such as the following systems:

- Firefighting including active and passive equipment.
- Domestic water supply and distribution
- Surface water and underground drainage and rainwater harvesting
- Electrical, telephone and data wiring
- Soil, wastewater and sewerage
- Refuse disposal systems.
- Mechanical ventilation and air-conditioning
- Vertical and horizontal transportation in buildings, based on relevant authority's building submissions, BIM regulation and procedures and Uniform Building By Laws (UBBL).

Learning Outcomes

After the course students shall be able to:

1. Understand the needs of various technical services components commonly used in building indoor and outdoor according to size, type and various building design.
2. Describe various basic technical aspects in buildings services such as for domestic cold water supply and distribution systems, sewerage systems, surface water drainage systems, mechanical ventilation system, electrical supply and distribution system, transportation system and passive and active fire protection systems.
3. Determine the requirements of building services appropriate to building specifications, submission guidelines and by-law.

Assessment:

Continuous Assessment: 40%

Final Examination: 60%

Soft Skills: CLS3b, CLS5, CLS2

BIA3021

3 credits

CULTURE AND CONTEXTS**Synopsis of Course Contents**

The course emphasises the importance of collaboration between students with external university/ external industry and selected community. Students will be able to understand how the culture and context elements influence the design of settlements and urbanisations of the community. Students will practice their skills to empower the community through video recording, taking photo, freehand sketching, cultural mapping, and measured drawing of the tangible and intangible heritage of the said community. The products will be exhibited and presented through verbal and graphic presentation in an appropriate place where the community is invited to attend. Outcome will be recorded for archival and/or published in newspaper or magazine or book.

Learning Outcomes

After the course students shall be able to:

1. Collaborate with external university and selected community local or oversea.
2. Assemble the tangible and intangible heritage through collaboration of any of the following activities such as interviewing the community, video filming, taking photography, freehand sketching, cultural mapping and measured drawing.
3. Exhibit the recorded heritage in appropriate place with the community as invited guest.
4. Produce report for archival and/or publication in newspaper or magazine or book.

Assessment:

Continuous Assessment: 100%

Soft Skills: CLS3b, CLS3d, CLS4

BIA3022

3 credits

ARCHITECTURAL ACADEMIC REPORTS

Synopsis of Course Contents

The course emphasises the importance of collaboration between students with external university/ external industry and selected community. Students will be able to understand how the culture and context elements influence the design of settlements and urbanisations of the community. Students will practice their skills to empower the community through video recording, taking photo, freehand sketching, cultural mapping, and measured drawing of the tangible and intangible heritage of the said community. The products will be exhibited and presented through verbal and graphic presentation in an appropriate place where the community is invited to attend. Outcome will be recorded for archival and/or published in newspaper or magazine or book.

Learning Outcomes

After the course students shall be able to:

1. Write a research proposal.
2. Produce literature review.
3. Identify appropriate research methods that includes data collection and data analysis.
4. Prepare a research report.

Assessment:

Continuous Assessment: 100%

Soft Skills: CLS5, CLS3c

BIA3026

3 credits

PROFESSIONAL STUDIES**Synopsis of Course Contents**

The course intends to expose students on professional practice and building construction site administration. The course also introduces concept and basic project management, feasibility studies, project control, organization structure, BIM practice and team management. Architects and other consultants' work and responsibility shall be introduced and explained.

Learning Outcomes

After the course students shall be able to:

1. Describe architect's roles and responsibilities in a real-life situation in an architect's office.
2. Understanding the process of getting planning and building plans approval.
3. Explain the fundamentals of planning, managing, and organizing building construction projects creatively, efficiently, and professionally.
4. Appraise project management principles

Assessment:

Continuous Assessment: 100%

Soft Skills: CLS4, CLS5

BIA3027

3 credits

WORKING DRAWING**Synopsis of Course Contents**

This course introduces the technical definition of working drawings in architectural practice. The course discusses on aspects of drawing management using CAD and/or BIM system to establish appropriate drawing and architectural notation at different scales and functions. This course also identifies important aspects of working drawings in relation of design communication, coordinated drawings, and building construction.

Learning Outcomes

After the course students shall be able to:

1. Identify various working drawing features and format for building construction.
2. Apply specific working drawing technical requirements according to specification standards.
3. Relate design drawings to the technical requirements of working drawings.

Assessment:

Continuous Assessment: 100%

Soft Skills: CLS2, CLS3c, CLS5

BIA3028

4 credits

INDUSTRIAL TRAINING**Synopsis of Course Contents**

This course introduces student to the actual architectural practice in an architectural company or in a company involving in related architectural practice, local or abroad. Each student is required to find the practical training placement for approval to ensure the placement company and the propose work tasks are appropriate with the course requirements. An academic staff will oversee student's progress with the assistance from the company supervisor.

Learning Outcomes

After the course students shall be able to:

1. Demonstrate the ability to practice knowledge gained in an actual situation in the architectural practice or related industry, local or abroad.
2. Adhere to the work order in an efficient, ethical and professional manner to obtain satisfactory results.
3. Record the work experiences in a timely manner to produce an industrial training report.

Assessment:

Continuous Assessment: 100%

Soft Skills: CLS3c, CLS3d, CLS4

PROGRAMME ELECTIVE COURSES**BIA2027**

3 credits

MEASURED DRAWING**Synopsis of Course Contents**

Students will have the opportunity to measure and report their findings from their study of heritage buildings. They will also be exposed to:

- The importance of building conservation
- Building construction methods
- Architectural drafting methods
- Heritage building site observation and analysis
- Historical aspects of studied heritage building

Learning Outcomes

After the course students shall be able to:

1. Identify architectural elements such as building plans, architectural concept, building layout, spatial organisation, construction method, building structure, and architectural details of heritage buildings.
2. Use appropriate measuring equipment and technique to measure selected buildings and their significant architectural elements.
3. Apply skills to draw architectural measured drawings and write report to produce related documents.

Assessment:

Continuous Assessment: 100%

Soft Skills: CLS1, CLS3d

BIA2028

3 credits

LANDSCAPE ARCHITECTURE**Synopsis of Course Contents**

Students will be exposed through series of lectures and study tours. This is to study how the nature of place and attitudes to nature inform landscape architectural design.

Learning Outcomes

After the course students shall be able to:

1. Define the landscape design related vocabulary and terminology.
2. Distinguish an awareness of the significance of the natural elements in the living environment
3. Illustrate relevant issues and recommendations of landscape elements.

Assessment:

Continuous Assessment: 100%

Soft Skills: CLS1, CLS3b, CLS5

BIA2029

3 credits

ARCHITECTURAL LIGHTING AND ACOUSTIC**Synopsis of Course Contents**

This course is a further discussion on the link between environmental physics and the built environment, focusing on:

- Architectural lighting and design
- Building acoustics and architectural acoustic design
- Related guidelines

Learning Outcomes

After the course students shall be able to:

1. Identify the needs, comfort, and requirements of building users in terms of lighting and architectural acoustics.
2. Demonstrate the design concept of special lighting and architectural acoustics in groups.
3. Appraise architectural design in terms of lighting and architectural acoustics.

Assessment:

Continuous Assessment: 100%

Soft Skills: CLS2, CLS3a, CLS3d

Synopsis of Course Contents

This course provides students with relevant skill set and production techniques to explore design with industrial tools. The teaching and demonstration are done in special labs to gain practical knowledge on the application of digital fabrication tools and manufacturing methods. Throughout the course, new design knowledge is obtained through a series of design experiments and production methods.

Learning Outcomes

After the course students shall be able to:

1. Execute CAD/CAM applications in the digital production process.
2. Assemble 'design to production' workflow using fabrication techniques to produce 'an architectural prototype'.
3. Organize an event (design commissioned, exhibition or competition entry and/or website, etc.) to showcase the product(s) studied.

Assessment:

Continuous Assessment: 100%

Soft Skills: CLS3d, CLS4

BUILDING SURVEYING

BUILDING SURVEYING

Introduction

Building Surveying is a rapidly growing profession in Malaysia and its services are highly needed in all economics and development situations. Its scope begins from the very early stage of planning a development project to construction management, maintenance and up to the conservation of historical and architecturally important buildings. To address the shortage of professional Building Surveyors in the country, the Building Surveying Programme at undergraduate level was introduced in the Universiti Malaya (UM) in 1996. This programme is recognised locally and internationally by professional bodies i.e. Royal Institution of Surveyors Malaysia (RISM) and The Royal Institution of Chartered Surveyors (RICS), UK. The degree can also be pursued at higher learning institutions abroad especially in the United Kingdom, Australia, Hong Kong and New Zealand or through a professional examination conducted by the RISM.

In the Malaysian context, a professional Building Surveyor is a qualified person, by examination and experience, and a member of the RISM. The main roles and responsibilities of a Building Surveyor in Malaysia, as prescribed by the RISM cover the following areas:

- Building Control and Space Planning;
- Building Performance & Risk Assessment; and
- Building Maintenance and Refurbishment.

The career as a professional Building Surveyor includes every aspect of a building life cycle from its planning stage to restoration, demolition and redevelopment. A competent Building Surveyor will be able to manage, organise, monitor, assess and coordinate construction works while acting as the main link to other professional services in the construction industry.

A qualified Building Surveyor can work at the Government/Semi-Government Department such as Local Authority, higher learning institution (public and private) and also private sector such as developer, financial and banking institution, consultant firm, insurance company and research organization.

Programme Aim

To produce ethical and professionally competent surveyors who are able to function effectively as members of the construction and property industry and able to face technological and managerial challenges in the national and global context.

Programme Learning Outcomes

At the end of the programme, graduates are able to:

- PO1 Apply the mastery of knowledge, skills and inclination corresponding to building surveying procedures;
- PO2 Coordinate support services in the area of specialization;
- PO3 Demonstrate effective communication within the built environment community and teamwork;
- PO4 Propose problem-solving solutions in building control and performance;
- PO5 Design and carry out research on building surveying challenges;
- PO6 Select and apply appropriate techniques, resources and suitable building surveying equipment;
- PO7 Practice awareness and responsibility towards social, health, safety, ethics and legal issues;
- PO8 Foster awareness towards entrepreneurship and sustainable development; and
- PO9 Foster readiness for career development and lifelong learning.

Programme Structure

Bachelor of Building Surveying

(8 semesters)

The Bachelor of Building Surveying programme consists of 8 semesters (including 1 special semester) with a total of 132 credits. This programme comprises two major components namely, university (24 credits) and faculty courses (108 credits) which constitute 15% and 85% respectively from the total credits.

The programme was developed based on the Programme Standards: Building Surveying by Malaysian Qualifications Agency (MQA). The curriculum structure is accredited by the Royal Institution of Surveyors Malaysia (RISM) and the Royal Institution of Chartered Surveyors (RICS), United Kingdom.

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PROGRAMME STRUCTURE: BACHELOR OF BUILDING SURVEYING (SESSION 2021/2022)

CATEGORY	NO	CODE	SUBJECT	YEAR 1		YEAR 2			YEAR 3		YEAR 4		TOTAL CREDIT	PRE-REQUISITE
				S1	S2	S3	S4	S5	S6	S7	S8	S9		
FACULTY COURSES (108 Credit)	1	BIB1001	Environmental Physics	2									2	
	2	BIB1002	Legal Studies	3									3	
	3	BIB1003	Material and Construction Technology I	3									3	
	4	BIB1004	Mathematics I	2									2	
	5	BIB1005	Building Law	3									3	
	6	BIB1006	Building Services		2								2	
	7	BIB1007	Structural Analysis		3								3	
	8	BIB1008	Building Design Communication		5								5	
	9	BIB1009	Material and Construction Technology II		3								3	
	10	BIB1010	Mathematics II				2						2	
	11	BIB1011	Mechanical & Electrical Services			3							3	
	12	BIB2001	Structural Design			3							3	
	13	BIB2002	Built Environment Economics & Business			2							2	
	14	BIB2003	Development and Building Control			5							5	
	15	BIB2004	Statistics						2				2	
	16	BIB2005	Material and Construction Technology III			3							3	
	17	BIB2006	Building Pathology I			3							3	
	18	BIB2007	Building Maintenance				3						3	
	19	BIB2008	Building Services Audit				4						4	
	20	BIB2009	Building Pathology II				3						3	BIB2006
	21	BIB2010	Facilities Management				3						3	
	22	BIB2011	Building Procurement and Specification				3						3	
	23	BIB2012	Building Measurement & Analysis					4					4	
	24	BIB3001	Project Management						4				4	
	25	BIB3002	Operation and Maintenance						3				3	
	26	BIB3003	Building Conservation						4				4	
	27	BIB3004	Risk and Construction Safety						2				2	
	28	BIB3005	Research Methodology						2				2	
	29	BIB3006	Professional Practice							3			3	
	30	BIB3007	Fire Safety Audit							3			3	
	31	BIB3008	Building Performance and IT							4			4	
	32	BIB3009	Construction Law							2			2	
	33	BIB3010	Academic Project							4			4	BIB3005
	34	BIB4001	Industrial Training								8		8	
UNIVERSITY COURSES (24 Credit)	35	GIG 1004	Information Literacy		2								2	
	36	GIG 1012	Philosophy and Current Issues (FIS)/ ** Basic Malay Language	2									2	
	37	GIG1013	Appreciation of Ethics and Civilizations		2								2	
	38		Co-Curriculum						2				2	
	39	GIG 1003	Basic of Entrepreneurship Culture			2							2	
	40	GLTxxx	English I	3									3	
	41	GLTxxx	English II		3								3	
	42		University Elective Courses				3			3			6	
	43	GIG1005	Social Engagement		2								2	
TOTAL CREDIT				18	22	21	21	4	19	19	8	0	132	
TOTAL SUBJECTS				7	8	7	7	1	7	6	1	0	44	

Note : * Exempted for non –Malaysian students and to be replaced with another Senate-approved university course.

PROGRAMME STRUCTURE: BACHELOR OF BUILDING SURVEYING (SESSION 2021/2022)

COMPONENTS	YEAR 1 (Bachelor of Building Surveying)									TOTAL CREDIT
	SEMESTER 1			SEMESTER 2			SPECIAL SEMESTER			
	COURSE CODE	COURSE TITLE	CREDIT	COURSE CODE	COURSE TITLE	CREDIT	COURSE CODE	COURSE TITLE	CREDIT	
Compulsory University Courses	GIG1012/ **GLT1017	Philosophy and Current Issues (FIS) / ** Basic Malay Language	2	GIG1013	Appreciation of Ethics and Civilizations	2				14
	GLTxxxx	English I	3	GIG1004	Information Literacy	2				
				GLTxxxx	English II	3				
				GIG 1005	Social Engagement	2				
Programme Core Courses	BIB1001	Environmental Physics	2	BIB1006	Building Services	2				26
	BIB1002	Legal Studies	3	BIB1007	Structural Analysis	3				
	BIB1003	Material and Construction Technology I	3	BIB1008	Building Design Communication	5				
	BIB1004	Mathematics I	2	BIB1009	Material and Construction Technology II	3				
	BIB1005	Building Law	3							
TOTAL CREDIT			18	TOTAL CREDIT		22				40

COMPONENTS	YEAR 2 (Bachelor of Building Surveying)									TOTAL CREDIT
	SEMESTER 1			SEMESTER 2			SPECIAL SEMESTER			
	COURSE CODE	COURSE TITLE	CREDIT	COURSE CODE	COURSE TITLE	CREDIT	COURSE CODE	COURSE TITLE	CREDIT	
Compulsory University Courses	GIG 1003	Basic of Entrepreneurship Culture	2		University Elective Courses	3				5
Programme Core Courses	BIB1011	Mechanical & Electrical Services	3	BIB2007	Building Maintenance	3	BIB2012	Building Measurement and Analysis	4	41
	BIB2001	Structural Design	3	BIB2008	Building Services Audit	4				
	BIB2002	Built Environment Economics and Business	2	BIB2009	Building Pathology II	3				
	BIB2003	Development and Building Control	5	BIB2010	Facilities Management	3				
	BIB2005	Material and Construction Technology III	3	BIB2011	Building Procurement and Specification	3				
	BIB2006	Building Pathology I	3	BIB1010	Mathematics II	2				
TOTAL CREDIT			21	TOTAL CREDIT		21			4	46

COMPONENTS	YEAR 3 (Bachelor of Building Surveying)									TOTAL CREDIT	
	SEMESTER 1			SEMESTER 2			SPECIAL SEMESTER				
	COURSE CODE	COURSE TITLE	CREDIT	COURSE CODE	COURSE TITLE	CREDIT	COURSE CODE	COURSE TITLE	CREDIT		
Compulsory University Courses		Co-curriculum	2		University Elective Courses	3				5	
Programme Core Courses	BIB2004	Statistics	2	BIB3006	Professional Practice	3				33	
	BIB3001	Project Management	4	BIB3007	Fire Safety Audit	3					
	BIB3002	Operation and Maintenance	3	BIB3008	Building Performance and Information Technology	4					
	BIB3003	Building Conservation	4	BIB3009	Construction Law	2					
	BIB3004	Risk Management and Construction Safety	2	BIB3010	Academic Project	4					
	BIB3005	Research Methodology	2								
TOTAL CREDIT			19	TOTAL CREDIT			19				38

COMPONENTS	YEAR 4 (Bachelor of Building Surveying)									TOTAL CREDIT
	SEMESTER 1			SEMESTER 2			SPECIAL SEMESTER			
	COURSE CODE	COURSE TITLE	CREDIT	COURSE CODE	COURSE TITLE	CREDIT	COURSE CODE	COURSE TITLE	CREDIT	
Programme Core Courses	BIB4001	Industrial Training	8							
TOTAL CREDIT			8	TOTAL CREDIT						8

OVERALL TOTAL CREDIT: 132

Note : Please note that programme structure is subject to change

PROGRAMME CORE COURSES

BIB1001

ENVIRONMENTAL PHYSICS

2 credits

Synopsis of Course Contents

Introduction to the concept of environmental physics in a sustainable development and human lifestyle influenced by lighting, ventilation and acoustic systems.

Learning Outcomes

At the end of the course, students are able to:

1. Describe natural systems and how humans interact with it
2. Identify concepts of environments physics in the design and performance of buildings; and
3. Explain the parameters of comfort in buildings in terms of climate, ventilation, lighting and sound.

Assessment:

Continuous Assessment: 60%

Final Examination: 40%

Soft Skills: CS1, CS2, CS3, CT1, CT2, CT3, EM1, EM2

BIB1002

LEGAL STUDIES

3 credits

Synopsis of Course Contents

This course focuses on Malaysian Legal System, tort and contract. It includes the principles and sources of Malaysian law, processes, systems and procedures, common law, statute and equity. This course covers the law of contract (Contracts Act 1950) emphasizing on capacity, consideration, intention to create legal relation and methods of discharging of contracts. It will also include the types of remedies. The law of torts includes negligence, duty of care, breach of duty, causation, remoteness, professional negligence, nuisance and trespass.

Learning Outcomes

At the end of the course, students are able to:

1. Explain the Malaysian Legal Systems
2. Identify the principles, sources, processes and procedures of the Malaysian legal system, tort and contract; and
3. Apply the principles and procedure of law of tort and contract.

Assessment:

Continuous Assessment: 40%

Final Examination: 60%

Soft Skills: CT1, CT2, CT3, LL1, LL2, EM1, EM2

BIB1003

3 credits

MATERIAL AND CONSTRUCTION TECHNOLOGY I**Synopsis of Course Contents**

Introduction to construction industry, building construction principles, methods and processes for low rise buildings based on relevant regulation and standard; construction activities and parties involved; civil and building works; building structures and elements; building materials and finishes.

Learning Outcomes

At the end of the course, students are able to:

1. Identify the process and stages of construction project
2. Explain the various method and construction materials
3. Apply construction technology knowledge in the relevant field;

Assessment:

Continuous Assessment: 60%

Final Examination: 40%

Soft Skills: CS1, CS2, CS3, TS1, TS2, LL1, LL2

BIB1004

2 credits

MATHEMATICS I**Synopsis of Course Contents**

Introduction to number, integer and arithmetic operation, linear algebra, equation and function, linear and linear, linear and quadratic equations.

Learning Outcomes

At the end of the course, students are able to:

1. Indicate number, integer and arithmetic operation
2. Translate statement into mathematical equation
3. Solve problem in construction using arithmetic and algebra concept

Assessment:

Continuous Assessment: 40%

Final Examination: 60%

Soft Skills: CT1, CT2, CT3, LL1, LL2

BIB1005

3 credits

BUILDING LAW**Synopsis of Course Contents**

Requirements of the National Land Code 1965, Local Government Act 1976, Town & Country Planning Act 1976, Federal Territory (Planning) Act 1982, Environmental Quality Act 1974, Road, Drainage & Building Act 1974, Uniform Building By-Laws 1984, Strata Title Act 1985, National Heritage Act 2005, Building and Common Properties Act 2007.

Learning Outcomes

At the end of the course, students are able to:

1. Describe the principles and working of specific legislative provisions in relation to land development and building
2. Interpret and apply the basic principles of building law in the construction and surveying context
3. Apply the knowledge of building to monitor compliance with relevant legislation

Assessment:

Continuous Assessment: 50%

Final Examination: 50%

Soft Skills: CT1, CT2, CT3, TS1, TS2, LL1, LL2

BIB1006

2 credits

BUILDING SERVICES**Synopsis of Course Contents**

Introduction to various types of building services system on low rise and high rise buildings; water supply and sanitation system, drainage and waste water system, reservoir system, plumbing system, garbage disposal system, and installation of gas supply.

Learning Outcomes

At the end of the course, students are able to:

1. State various type of services in buildings
2. Discuss the design, installation and location of equipment in services system; and
3. Identify the needs and limitations of building services systems.

Assessment:

Continuous Assessment: 40%

Final Examination: 60%

Soft Skills: CT1, CT2, CT3, TS1, TS2, LL1, LL2

BIB1007

3 credits

STRUCTURE ANALYSIS**Synopsis of Course Contents**

Introduction to building structures layout. Building loading, forces and reaction in structures. Axial forces, shear force and bending moment. Framed structures. Properties of section, material strength and safety factors.

Learning Outcomes

At the end of the course, students are able to:

1. Identify type of building structures and loading
2. Estimate the loads reacting on the building members
3. Determine the forces reacting on the building structures
4. Provide a safe section of building member

Assessment:

Continuous Assessment: 60%

Final Examination: 40%

Soft Skills: CT1, CT2, CT3, TS1, TS2, LL1, LL2

BIB1008

5 credits

BUILDING DESIGN COMMUNICATION**Synopsis of Course Contents**

Introduction to building design theories and concept; site survey and existing building measurements; integration of form, space and function in building design.

Learning Outcomes

At the end of the course, students are able to:

1. Differentiate technical, architectural and construction drawings
2. Interpret existing building into technical drawings
3. Provide technical drawings using computer software.

Assessment:

Continuous Assessment: 100%

Soft Skills: CS1, CS2, CS3, CT1, CT2, CT3, LL1, LL2

BIB1009

3 credits

MATERIAL AND CONSTRUCTION TECHNOLOGY II**Synopsis of Course Contents**

Introduction to construction industry, building construction principles, methods and processes for multi-storey building based on relevant regulation and standard; site preparation and machineries; building frames; roof system, elements, materials and finishes; piling and basement; fundamental of building alteration.

Learning Outcomes

At the end of the course, students are able to:

1. Describe the principles, design, materials and methods in multi-storey building construction.
2. Identify preliminary construction activities and machineries
3. Determine the suitability of construction methods for multi-storey building

Assessment:

Continuous Assessment:	60%
Final Examination:	40%
Soft Skills:	CS1, CS2, CS3, CT1, CT2, CT3, LL1, LL2

BIB1010

2 credits

MATHEMATICS II**Synopsis of Course Contents**

Geometry and trigonometry concept, Pythagoras theorem, sine and cosine, tangent and vector.

Learning Outcomes

At the end of the course, students are able to:

1. Indicate geometry and trigonometry concept
2. Calculate force in building using vector and static equations
3. Apply trigonometry theory in site and building surveys.

Assessment:

Continuous Assessment:	40%
Final Examination:	60%
Soft Skills:	CT1, CT2, CT3, LL1, CT1, TS1, TS2, TS3

BIB1011

3 credits

MECHANICAL AND ELECTRICAL SERVICES**Synopsis of Course Contents**

Introduction to the various types of mechanical and electrical systems in buildings such as the type of cable, telephone and communication systems, security and safety systems, mechanical transport system, air conditioning and mechanical ventilation systems, lighting and electrical systems, and Building Automation Systems and fire protection systems.

Learning Outcomes

At the end of the course, students are able to:

1. Describe the various mechanical and electrical (M&E) equipment, and other systems associated with buildings.
2. Identify the needs of mechanical and electrical systems in buildings.
3. Determine the mechanical and electrical systems installed in the building.

Assessment:

Continuous Assessment: 60%

Final Examination: 40%

Soft Skills: CS1, CS2, CS2, CT1, CT2, CT3, TS1, TS2

BIB2001

3 credits

STRUCTURAL DESIGN**Synopsis of Course Contents**

Introduction to philosophy of structural design, rule of thumb in arrange reinforced concrete, timber and steel structures. Properties and characteristics of reinforced concrete, timber and steel materials. Load distribution and analysis. Design concrete beam, slab and column using the design chart. Design timber and steel structures using elastic theory.

Learning Outcomes

At the end of the course, students are able to:

1. Arrange structure plan for low-rise building;
2. Estimate loads and forces react on the building structures;
3. Determine reinforcement in concrete and safe size for timber and steel structures;
4. Prepare details drawing for reinforced concrete

Assessment:

Continuous Assessment: 60%

Final Examination: 40%

Soft Skills: CT1, CT2, CT3, TS1, TS2, LL1, LL2

BIB2002

2 credits

BUILT ENVIRONMENT ECONOMICS AND BUSINESS**Synopsis of Course Contents**

Introduction to construction industry, construction firms; supply and demand within built environment; principles of macro and micro economics; introduction to business industry, environmental economics and economic factors within construction industry

Learning Outcomes

At the end of the course, students are able to:

1. Evaluate the roles of different agencies in the construction industry, the supply and demand within the built environment;
2. Identify economic principles in an environmental economics;
3. Discuss sound economic argument for business;

Assessment:

Continuous Assessment: 60%

Final Examination: 40%

Soft Skills: CS1, CS2, CS3, KK1, KK2, EM1, EM2

BIB2003

4 credits

DEVELOPMENT AND BUILDING CONTROL**Synopsis of Course Contents**

Exposure to urban planning, planning theories, and site analysis. Application of knowledge in Uniform Building By-law 1984 and Road, Drainage & Building Acts 1995, Certificate of Fitness (CF) and Certificate of Completion and Compliance (CCC) approvals procedures; plans checking practice and inspection methods; Building design theories and concepts for building refurbishment, legal requirements, site and existing building analysis.

Learning Outcomes

At the end of the course, students are able to:

1. Understanding aspects of planning theories and site analysis
2. Apply process and procedures for building plan approval and issuance of Certificate of Fitness for Occupation (CF) and Certificate of Completion and Compliance (CCC)
3. Propose refurbishment according to relevant regulation and legislation; and
4. Evaluate design and legislative requirements for building plan approval

Assessment:

Continuous Assessment: 100%

Soft Skills: CS1, CS2, CS3, CT1, CT2, TS1, TS2

BIB2004

2 credits

STATISTICS**Synopsis of Course Contents**

Introduction to qualitative and quantitative data. Analyse quantitative data using statistical concepts. Analyse data probability using regression and related theory. Determine type of data distribution.

Learning Outcomes

At the end of the course, students are able to:

1. Calculate average, median and mode of quantitative data;
2. Determine variation, standard deviation and regression of quantitative data;
3. Provide data distribution graph

Assessment:

Continuous Assessment: 40%

Final Examination: 60%

Soft Skills: CT1, CT2, CT3, LL1, LL2

BIB2005

3 credits

MATERIAL AND CONSTRUCTION TECHNOLOGY III**Synopsis of Course Contents**

Introduction to heavy substructure works and high-rise building construction systems based on relevant regulation and standard; pre-fabricated building systems; pre-cast concrete; pre-stress and post-tension concrete; formworks, false works and scaffoldings; advanced contemporary materials and external works.

Learning Outcomes

At the end of the course, students are able to:

1. Describe heavy substructure works and advanced building construction system;
2. Discuss alternative construction materials and methods for high-rise buildings; and
3. Illustrate methods for complex constructions.

Assessment:

Continuous Assessment: 60%

Final Examination: 40%

Soft Skills: CS1, CS2, CS3, CT1, CT2, CT3, LL1, LL2

BIB2006

3 credits

BUILDING PATHOLOGY 1**Synopsis of Course Contents**

Introduction to various types of building defects occurred on building fabrics and structures; understanding material behaviour due to mechanical, biological, chemical and environmental agents; deterioration on modern and traditional materials. Introduction to building inspection, measurement techniques using appropriate apparatus, and various remediation techniques. Preparation of building condition reporting based on RICS and RISM standards.

Learning Outcomes

At the end of the course, students are able to:

1. Describe various building defects, material behaviours and deterioration agents;
2. Report building inspection investigation and building defects diagnostics;
3. Analysis of inspection diagnostics and building inspection

Assessment:

Continuous Assessment: 60%

Final Examination: 40%

Soft Skills: CT1, CT2, CT3, TS1, TS2, EM1, EM2

BIB2007

3 credits

BUILDING MAINTENANCE**Synopsis of Course Contents**

Introduction to the various types of building maintenance strategies; planned and preventive building maintenance methods; economical and efficient maintenance; organizational chart; maintenance activities; supervision and monitoring.

Learning Outcomes

At the end of the course, students are able to:

1. Explain the various method and procedure of building maintenance management and expenditure
2. Identify the needs and requirements of building maintenance and management
3. Propose economic planning for maintenance and expenditure

Assessment:

Continuous Assessment: 60%

Final Examination: 40%

Soft Skills: CT1, CT2, CT3, LL1, LL2, EM1, EM2

BIB2008

4 credits

BUILDING SERVICES AUDIT**Synopsis of Course Contents**

Application of detailed plan checking on building services and facilities installation, layout, size and numbers required; incorporate building laws and regulatory requirements in auditing the performance of mechanical, electrical, plumbing, conveying, and other specialty systems; apply sustainable principles in building services refurbishment

Learning Outcomes

At the end of the course, students are able to:

1. Examine problems in building services system which include its installation, operation and function based on by-law requirements and other guidelines
2. Inspect building services design requirement through calculation, plan checking and building audit
3. Propose sustainable refurbishment retrofitting on building services provision in achieving optimum and effective performance

Assessment:

Continuous Assessment: 100%

Soft Skills: CT1, CT2, CT3, LL1, LL2, EM1, EM2

BIB2009

3 credits

BUILDING PATHOLOGY II**Synopsis of Course Contents**

Detailed applications associated with different types of buildings and property investigation repair methods. Knowledge of building construction and use of pathology in the investigation of the property to meet client requirements and provisions.

Learning Outcomes

At the end of the course, students are able to:

1. Report findings from diagnostic inspection and incorporate scientific information into building inspection report;
2. Prepare specifications of repairs;
3. Write suggestions and advice based on the findings of the inspection results; and

Assessment:

Continuous Assessment: 60%

Final Examination: 40%

Soft Skills: CT1, CT2, CT3, TS1, TS2, LL1, LL2

BIB2010

3 credits

FACILITIES MANAGEMENT**Synopsis of Course Contents**

Introduction to facilities management and its relation to building design and operation; strategic facilities operation management for organisations; the relationship between facilities management and building performance to ensure productive working environment. Exposure to sustainable asset management and facilities maintenance; and diagnosis of Post occupancy evaluation (POE) to upgrade corrective operation; procurement of facilities project through service level agreement or contracts based on continuous performance; health and safety awareness within workplace design.

Learning Outcomes

At the end of the course, students are able to:

1. Apply the techniques of asset maintenance and effective operation;
2. Evaluate facilities operations techniques for commercial organizations;
3. Appraise facilities performance level for a workplace; and
4. Propose upgrading for facilities components.

Assessment:

Continuous Assessment: 40%

Final Examination: 60%

Soft Skills: CT1, CT2, CT3, LL1, LL2, EM1, EM2

BIB2011

3 credits

BUILDING PROCUREMENT AND SPECIFICATION**Synopsis of Course Contents**

Introduction to the standard methods of quantification and specification (SMM 2). Application of measurement forms and measurement collection methods and description design. Quantification for renovation works, refurbishment, internal and external buildings and estimation

Types of contract: Built Operate and Transfer (BOT), direct negotiation, design and build, turnkey, lump sum, joint venture, privatization. Contract process and procedures, Contract liability, Document for appointment of contractor, payment to contractors (performance bond, insurance, etc.)

Learning Outcomes

At the end of the course, students are able to:

1. Explain the standard of measurement methods in construction work;
2. Identify the type, process, procedure and liability of contract and process and procedure to engage employment of contractors and consultants;
3. Prepare job specification and quotations (JKR/PAM) and construction price estimation for internal and external building measurement works; and
4. Determine method of payment for work progress and variation order.

Assessment:

Continuous Assessment: 60%

Final Examination: 40%

Soft Skills: CT1, CT2, CT3, LL1, LL2, KK1

BIB2012

4 credits

BUILDING MEASUREMENT AND ANALYSIS**Synopsis of Course Contents**

Introduction to the surveying works and using surveying equipment for collecting and recording existing building data. Application of building surveying works: preliminary and site analysis, building measurement and building condition as well as preparing building plans. Analysis and preparing drawings and reports.

Learning Outcomes

At the end of the course, students are able to:

1. Apply methods, procedures and surveying equipment
2. Produce existing plans and charge plans
3. Prepare Condition Survey Report and Measured Drawings

Assessment:

Continuous Assessment: 100%

Soft Skills: TS1, TS2, LL1, LL2, LS1, LS2

BIB3001

4 credits

PROJECT MANAGEMENT**Synopsis of Course Contents**

Introduction to project management concept; organization and work structure, process and execution, planning and control and monitoring processes involved in construction and development projects; management techniques and control of time, cost and quality in construction project; project scheduling, procurement, document and contract procedure; market study and project feasibility; total project management; risk management and decision making in project management.

Learning Outcomes

At the end of the course, students are able to:

1. Elaborate the concept of project management and processes involved in construction project;
2. Evaluate time, cost and quality management techniques, and decision making in construction or refurbishment works ; and
3. Apply the concept of project management and processes involved in construction projects.

Assessment:

Continuous Assessment: 60%

Final Examination: 40%

Soft Skills: CT1, CT2, CT3, LL1, LL2, EM1, EM2

BIB3002

3 credits

OPERATION AND MAINTENANCE**Synopsis of Course Contents**

Principle and techniques of building maintenance; landscape maintenance operations; pest control; health and safety aspects in building maintenance work. Exposure to building operation and maintenance including remedial techniques, preparation of maintenance schedule and specification writing

Learning Outcomes

At the end of the course, students are able to:

1. Discuss the principle of building operation and maintenance;
2. Evaluate the appropriate application for various types of maintenance;
3. Determine specification writings for maintenance work;
4. Propose maintenance schedules and remedial techniques.

Assessment:

Continuous Assessment: 40%

Final Examination: 60%

Soft Skills: CT1, CT2, CT3, KK1, LS1, LS2

BIB3003

4 credits

BUILDING CONSERVATION**Synopsis of Course Contents**

Introduction to the principles and practice, techniques and methods of heritage building conservation, conservation philosophy and technology, preservation and restoration as well as their limitations. Design analysis and evaluation on its needs, issues and problems on a given conservation project. Also introduction to conservation Methods and Application of National Heritage Acts (2005); Building investigation methods, review and buildings dilapidation; investigation on building structure and materials

Learning Outcomes

At the end of the course, students are able to:

1. Discuss the principles and practice, techniques and methods of heritage building conservation;
2. Apply technical knowledge and legislation with regards to buildings conservation; and
3. Propose heritage building conservation works.

Assessment:

Continuous Assessment: 100%

Soft Skills: CS1, CS2, CS3, CT1, CT2, CT3, TS1, TS2

BIB3004

3 credits

RISK MANAGEMENT AND CONSTRUCTION SAFETY**Synopsis of Course Contents**

Introduction to risk, health and safety in construction industry: risk and danger, legislation and safety acts: OSHA 1994, building works guidelines; Role, importance and safety and health management: characteristics, policy, investigative methods, manuals and procedures; Accidents at site: report, monitoring and prevention. Explanation of current case studies which are related to safety and health issues in the construction industry.

Learning Outcomes

At the end of the course, students are able to:

1. Discuss health and safety scenarios and issues in the construction industry in Malaysia;
2. Evaluate the needs of health and safety management in the constructed industry on related legislation; and
3. Produce technical reports based on health and safety management in the construction industry.

Assessment:

Continuous Assessment: 60%

Final Examination: 40%

Soft Skills: CS1, CS2, CS3, TS1, TS2, EM1, EM2

BIB3005

2 credits

RESEARCH METHODOLOGY**Synopsis of Course Contents**

Explore suitable quantitative and qualitative research methods, analytical thinking and literature review. Outline individual research project for conducting a dissertation.

Learning Outcomes

At the end of the course, students are able to:

1. Discuss literature review critically;
2. Write research problem statement, aim and objectives
3. Propose research method that is appropriate with research objectives.

Assessment:

Continuous Assessment: 100%

Soft Skills: CS1, CS2, CS3, CT1, CT2, CT3, EM1, EM2

BIB3006

3 credits

PROFESSIONAL PRACTICE**Synopsis of Course Contents**

Introduction to Building Surveying profession, Building Surveying scope of works in construction sector, professional qualification, qualities, skills, codes and ethics. Contractual Relationship, Duties and Fees. Organization Management and Office Establishment, personal appointment and job interview, professionalism and recognition in local and global level, services in public and private sectors.

Learning Outcomes

At the end of the course, students are able to:

1. Discuss the importance and roles of building surveying;
2. Provide working approach of building surveying
3. Analyse building surveyors' roles and responsibilities.

Assessment:

Continuous Assessment:	60%
Final Examination:	40%
Soft Skills:	KK1, KK2, EM1, EM2, LS1

BIB3007

3 credits

FIRE SAFETY AUDIT**Synopsis of Course Contents**

Introduction to the evaluation of fire safety and risk in building; identify the fire hazards; identify people at risk; evaluate, remove or reduce the risks; prepare an emergency evacuation plan; and, review and update the fire risk assessment based on legislation requirements and standards.

Learning Outcomes

At the end of the course, students are able to:

1. Discuss the aspect of fire and safety in building based on relevant legislation requirements and standards;
2. Analyse the risk and probability of fire occurrences in an existing building; and
3. Develop fire safety strategy based on the principle of fire risk assessment

Assessment:

Continuous Assessment:	60%
Final Examination:	40%
Soft Skills:	CT1, CT2, CT3, TS1, TS2, EM1, EM2

BIB3008

4 credits

BUILDING PERFORMANCE AND INFORMATION TECHNOLOGY**Synopsis of Course Contents**

Application of practice, process and procedures of building inspection on buildings' post constructions stage; inspections of building quality and reports; focusing on Post Occupancy Evaluation through promoting best practice and understand the requirements and needs of BPE; knowledge of architectural design principles, building construction, building materials properties and technical building systems in order to better understand their interdependencies in terms of total building performance; capable to evaluate different design concepts in terms of technical system integration, energy efficiency and sustainability; knowledge on simulation techniques and introduction of the theoretical and operational principles underlying this technology to achieve quality indoor environment

Learning Outcomes

At the end of the course, students are able to:

1. Discuss the benefits, concepts, assumptions of state of the art building performance simulation methods;
2. Develop systematic and rigorous approach in identifying failures of buildings in post construction period; and
3. Apply Building Performance Evaluation (BPE) in meeting design goals for resource consumption and occupants' satisfaction.

Assessment:

Continuous Assessment: 100%

Soft Skills: CS1, CS2, CS3, CT1, CT2, TS1, TS2

BIB3009

2 credits

CONSTRUCTION LAW**Synopsis of Course Contents**

Introduction to the principles of construction law, the roles and objectives of construction law, construction contracts and related problems. It includes construction organisation structure, problems and responsibilities of the parties involved in the contract, risk allocation and claims. It will also cover the types of repudiation, litigation and alternative dispute resolutions.

Learning Outcomes

At the end of the course, students are able to:

1. Elaborate the roles and objectives of construction law
2. Evaluate the principles of construction law; and
3. Apply construction law in construction contracts and related problems.

Assessment:

Continuous Assessment: 50%

Final Examination: 50%

Soft Skills: CT1, CT2, CT3, LL1, LL2, EM1, EM2

BIB3010

4 credits

ACADEMIC PROJECT**Synopsis of Course Contents**

Preparation of research report related to building surveying field by applying suitable research methodology, processes and techniques

Learning Outcomes

At the end of the course, students are able to:

1. Critically analyse problems of an academic or practical significance in building surveying fields;
2. Apply appropriate methods and processes;
3. Evaluate the application of theoretical concepts in practical context

Assessment:

Continuous Assessment: 100%

Soft Skills: CT1, CT2, CT3, LL1, LL2, EM1, EM2

BIB4001

8 credits

INDUSTRIAL TRAINING**Synopsis of Course Contents**

Introduction to professional working environment; applying comprehensive building surveying skills as well as building construction knowledge; exposure to the actual working environment by practice interpersonal skills and effective teamwork.

Learning Outcomes

At the end of the course, students are able to:

1. Apply classroom learning in the actual building industrial working;
2. Possess interpersonal and related building surveying managerial and technical skills; and
3. Practice work ethics and professionalism in actual working environment

Assessment:

Continuous Assessment: 100%

Soft Skills: CS1, CS2, CS3, TS1, TS2, EM1, EM2

QUANTITY SURVEYING

QUANTITY SURVEYING

Introduction

The Bachelor of Quantity Surveying programme was initiated in 1995. In July 1996, the first batch of students enrolled for their studies under a new program called Built Environment Program, which was subsequently upgraded to Built Environment Division under the umbrella of the Faculty of Engineering. Later, the Division was upgraded into a full-fledged faculty known as the Faculty of Built Environment in May 2000.

Programme Aim

To produce graduates with a professional degree in Quantity Surveying to practice within but not limited to the construction industry both locally and internationally who can understand and apply knowledge effectively with high awareness of culture and ethics.

Programme Learning Outcomes

At the end of the programme, graduates would be able to:

- PO1** Discover the relevant knowledge of quantity surveying in the construction industry.
- PO2** Apply the necessary technical and practical skills in the quantity surveying field.
- PO3** Demonstrate the ability to carry out professional responsibilities towards all relevant stakeholders in the industry.
- PO4** Demonstrate the required level of professionalism and commitment to ethical practice.
- PO5** Demonstrate the ability to communicate in a clear, reasonable and professional manner; able to work independently or collaboratively, and able to lead effectively and efficiently.
- PO6** Identify and analyse problems, evaluate strategic choices, able to arrive at a decision with supporting evidence and give good judgement.
- PO7** Develop knowledge to enhance self-development.
- PO8** Demonstrate effective and efficient managerial and entrepreneurial skills.

Programme Structure

Bachelor of Quantity Surveying

(7 Semesters)

The University of Malaya's Bachelor of Quantity Surveying programme has been formulated in accordance with the general guidelines provided by the Board of Quantity Surveyors Malaysia (BQSM) and the Royal Institution of Chartered Surveyors (RICS), United Kingdom. Additionally, the programme has received accreditations from BQSM, RICS and the Pacific Association of Quantity Surveyors (PAQS) respectively.

The course structure consists of three and a half (3.5) years full-time studies and typically divided into two (2) durations of studies per year (Semester I and Semester II). Upon graduation and having worked for two (2) years under the supervision of a Registered Professional/Consultant Quantity Surveyor, students are eligible to sit for the Assessment of Professional Competence (APC) in order to obtain the recognition as a Registered Professional Quantity Surveyor (PQS) from the BQSM.

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PROGRAMME STRUCTURE: BACHELOR OF QUANTITY SURVEYING (SESSION 2021/2022)

CATEGORY	NO	CODE	SUBJECT	LEVEL I		LEVEL II		LEVEL III		LEVEL IV		TOTAL CREDITS	%	PRE-REQUISITE
				S1	S2	S3	S4	S5	S6	S7	S8			
FACULTY COURSES														
Measurement	1	BIC1001	Measurement of Construction works I	4								20	15	
	2	BIC1005	Measurement of Construction works II		4									BIC1001
	3	BIC2001	Measurement of Construction works III			4								BIC1005
	4	BIC2006	Measurement of Construction works IV				4							BIC2001
	5	BIC3001	Measurement of Construction works V					4						
Professional Practice	6	BIC2002	Professional Practice I				3					6	5	
	7	BIC2007	Professional Practice II					3						BIC2002
Technology in Construction	8	BIC1002	Construction Technology I	3								18	14	
	9	BIC1006	Construction Technology II		3									BIC1002
	10	BIC2003	Construction Technology III			3								BIC1006
	11	BIC2008	Construction Technology IV				3							
	12	BIC1003	Building Services I	2										
	13	BIC1007	Building Services II		2									
	14	BIC1004	Site Survey			2								
Management in Construction	15	BIC3002	Project Management I					2				4	3	
	16	BIC3005	Project Management II						2					
Economics	17	BIC1008	Construction Economics I			3						11	9	
	18	BIC2004	Construction Economics II				3							BIC1008
	19	BIC3006	Data Analysis					2						
	20	BIC2009	Analysis of Prices				3							
Law	21	BIC3003	Construction Law I					3				6	5	
	22	BIC3007	Construction Law II						3					BIC3003
Integrated Project	23	BIC1009	Integrated Project I		3							9	7	
	24	BIC2010	Integrated Project II				3							
	25	BIC3004	Integrated Project III					3						

CATEGORY	NO	CODE	SUBJECT	LEVEL I		LEVEL II		LEVEL III		LEVEL IV		TOTAL CREDITS	%	PRE-REQUISITE
				S1	S2	S3	S4	S5	S6	S7	S8			
Research and Training	26	BIC3008	Research Project						4			14	11	BIX1002
	27	BIC4001	Industrial Training							10				
Faculty Core Courses	28	BIX1001	Legal Studies			3						6	5	
	29	BIX1002	Research Methodology in Built Environment					3						
Programme Elective	30	BIC	Program Elective 1			3						6	5	
	31	BIC	Program Elective 2					3						
Faculty Elective	32	BIX	Faculty Elective 1	3								6	5	
	33	BIX	Faculty Elective 2						3					
University Courses	34	GIG1004	Information Literacy		2							20	16	
	35	GIG1012/** GLT1017	Philosophy and Current Issue/**Basic Malay Language	2										
	36	GIG1013	Appreciation of Ethics and Civilization		2									
	37	GIG1003	Basic Entrepreneurship Culture			2								
	38		Co-Curriculum						2					
	39	GLTxxxx	English 1	3										
	40	GLTxxxx	English 2		3									
	41		University Elective Course						2					
	42	GIG1005	Social Engagement				2							
TOTAL SUBJECT BREAKDOWN	TOTAL CREDITS			17	19	20	21	21	18	10		126	100	
	TOTAL SUBJECTS			6	7	7	7	7	7	1		42		
	TOTAL UNIVERSITY COURSES			2	3	1	1	0	2	0		9		
	TOTAL FACULTY COURSES			4	4	6	6	7	5	1		33		

Note:

*Exemption for non-Malaysian students and to be replaced with another Senate-approved university course

**Course offered to non-Malaysian students

PROGRAMME STRUCTURE: BACHELOR OF QUANTITY SURVEYING (SESSION 2021/2022)

COMPONENTS	YEAR 1 (Bachelor of Quantity Surveying)						TOTAL CREDIT	
	SEMESTER 1			SEMESTER 2				
	COURSE CODE	COURSE TITLE	CREDIT	COURSE CODE	COURSE TITLE	CREDIT		
University Courses		English I	3		English II	3	12	
	GIG1012/ **GLT1017	Philosophy and Current Issue/**Basic Malay Language	2	GIG1004	Information Literacy	2		
				GIG1013	Appreciation of Ethics and Civilization	2		
Faculty Core Course		-Not offered-	-		-Not offered-	-		
Faculty Elective	BIXxxx	Faculty Elective 1*	3		-Not offered-	-	3	
Programme Elective		-Not offered-	-		-Not offered-	-	-	
Programme Core Courses	BIC1001	Measurement of Construction Works I	4	BIC1005	Measurement of Construction Works II	4	21	
	BIC1002	Construction Technology I	3	BIC1006	Construction Technology II	3		
	BIC1003	Building Services I	2	BIC1007	Building Services II	2		
				BIC1009	Integrated Project I	3		
TOTAL CREDIT			17	TOTAL CREDIT			19	36

COMPONENTS	YEAR 2 (Bachelor of Quantity Surveying)						TOTAL CREDIT	
	SEMESTER 3			SEMESTER 4				
	COURSE CODE	COURSE TITLE	CREDIT	COURSE CODE	COURSE TITLE	CREDIT		
University Courses	GIG1003	Basic Entrepreneurship Culture	2				4	
				GIG1005	Social Engagement	2		
Faculty Core Course	BIX 1001	Legal Studies	3		-Not offered-	-	3	
Faculty Elective		-Not offered-	-		-Not offered-	-	-	
Programme Elective	BICxxxx	Programme Elective 1*	3		-Not offered-	-	3	
Programme Core Courses	BIC2001	Measurement of Construction Works III	4	BIC2006	Measurement of Construction Works IV	4	31	
	BIC2003	Construction Technology III	3	BIC2002	Professional Practice I	3		
	BIC1008	Construction Economics I	3	BIC2008	Construction Technology IV	3		
	BIC1004	Site Survey	2	BIC2009	Analysis of Prices	3		
				BIC2004	Construction Economics II	3		
				BIC2010	Integrated Project II	3		
TOTAL CREDIT			20	TOTAL CREDIT			21	41

COMPONENTS	YEAR 3 (Bachelor of Quantity Surveying)						TOTAL CREDIT	
	SEMESTER 5			SEMESTER 6				
	COURSE CODE	COURSE TITLE	CREDIT	COURSE CODE	COURSE TITLE	CREDIT		
University Courses		-Not offered-	-				4	
					Co-Curriculum	2		
					Elective Course	2		
Faculty Core Course	BIX1002	Research Methodology in Built Environment	3		-Not offered-	-	3	
Faculty Elective	BIxxxx	Faculty Elective 2*	3		-Not offered-	-	3	
Programme Elective		-Not offered-	-	BICxxxx	Programme Elective 2*	3	3	
Programme Core Courses	BIC3001	Measurement of Construction Works V	4	BIC3005	Project Management II	2	26	
	BIC2007	Professional Practice II	3	BIC3006	Data Analysis	2		
	BIC3002	Project Management I	2	BIC3007	Construction Law II	3		
	BIC3003	Construction Law I	3	BIC3008	Research Project	4		
	BIC3004	Integrated Project III	3					
TOTAL CREDIT			21	TOTAL CREDIT			18	39

COMPONENTS	YEAR 4 (Bachelor of Quantity Surveying)		
	SEMESTER 7		
	COURSE CODE	COURSE TITLE	CREDIT
University Courses		-Not offered-	-
Faculty Core Course		-Not offered-	-
Faculty Elective		-Not offered-	-
Programme Elective		-Not offered-	-
Programme Core Courses	BIC4001	Industrial Training	10
TOTAL CREDIT			10

OVERALL TOTAL CREDIT: 126

*List of Faculty and Programme Elective Subjects

	Faculty Elective	Credits		Programme Elective	Credits
BIX1005	Principles of Management	3	BIC2005	Information Technology in Construction	3
BIX1006	Introduction to Financial Management Accounting	3	BIC2011	Risk and Value Management	3
BIX1003	Principles of Economics	3	BIC2012	Building Structure	3
BIX1004	Data Analysis and Statistic	3			

PROGRAMME CORE COURSES

BIC 1001

MEASUREMENT OF CONSTRUCTION WORKS I

4 credits

Synopsis of Course Contents

This course covers the principles and standard methods of measurement in accordance with the Standard Method of Measurement 2 (SMM2), the use of the specification and development of the quantity surveying profession. This includes exposure to the use of Building Information Modelling (BIM) in the measurement of quantities for construction works.

Learning Outcomes

At the end of the course, students are able to:

1. Define the objectives, principles and functions of the Standard Method of Measurement 2 (SMM2)
2. Apply the principles of specification writing for works below lowest floor finishes.
3. Measure the quantities of works below lowest floor finish level from drawings.

Assessment:

Continuous Assessment: 40%

Final Examination: 60%

Soft Skills: CT1, CT2, CT3, TS1, LL1

BIC 1002

CONSTRUCTION TECHNOLOGY I

3 credits

Synopsis of Course Contents

This course provides knowledge about current building technologies. This includes construction system and foundation, floors, stairs, walls, roofs, ceilings, doors, windows and finishes.

Learning Outcomes

At the end of the course, students are able to:

1. Identify the process and stage of building projects of small and medium enterprises.
2. Explain the different types of construction methods and their applications in accordance with the specific requirements of each project.
3. Apply knowledge in the field of building technology into quantity surveying field.

Assessment:

Continuous Assessment: 40%

Final Examination: 60%

Soft Skills: CS1, CS2, CS3, CT1, CT2, CT3, TS1, TS2

BIC 1003

2 credits

BUILDING SERVICES I**Synopsis of Course Contents**

Introduction to various types of building services systems in low rise and multi-storey building that include water supply systems and sanitation, sewage and sewerage systems, garbage disposal system, fire protection systems and installation of gas supply.

Learning Outcomes

At the end of the course, students are able to:

1. Identify various types of services in the building.
2. Explain the building service system and operation.
3. Describe the needs and the importance of various building services.

Assessment:

Continuous Assessment: 40%

Final Examination: 60%

Soft Skills: CT1, CT2, CT3, TS1, TS2, LL1, LL2

BIC 1004

2 credits

SITE SURVEY**Synopsis of Course Contents**

This course includes the learning of definitions, concepts, principles and procedures of site survey. The use of survey equipment and survey levelling. The procedure for ascertaining the parameter observation, bearing, distance and recording techniques. Measurement area, topography, cutting and filling. Confirmation of the location and the coordinates for the existing building and the proposed building.

Learning Outcomes

At the end of the course, students will be able to:

1. Explain the principle and method of land survey.
2. Identify the types and usage of survey equipment.
3. Apply the suitable technique for the site survey.

Assessment:

Continuous Assessment: 100%

Soft Skills: CT1, CT2, CT3, TS1, TS2, EM1, EM2

BIX 1001

3 credits

LEGAL STUDIES**Synopsis of Course Contents**

This course focuses on the Malaysian Legal System, tort and contract. It includes the principles and sources of Malaysian law, processes, systems and procedures, common law, statute and equity. This course covers the law of contract (Contracts Act 1950) emphasizing on capacity, consideration, intention to create legal relation and methods of discharging of contracts. It will also include the types of remedies. The law of torts including negligence, the duty of care, breach of duty, causation, remoteness, professional negligence, nuisance and trespass to land.

Learning Outcomes

At the end of the course, students are able to:

1. Explain the Malaysian Legal System.
2. Identify the principles, sources, processes and procedures of the Malaysian legal system, tort and contract.
3. Apply the principle and procedure of law of tort and contract.

Assessment:

Continuous Assessment: 40%

Final Examination: 60%

Soft Skills: CT1, CT2, CT3, LL1, EM1

BIC 1005

4 credits

MEASUREMENT OF CONSTRUCTION WORKS II**Synopsis of Course Contents**

This course covers the principles and standard methods of measurement in accordance with the Standard Method of Measurement 2 (SMM2) for the elements of the frame, upper floor slab, staircase, door, window and finishes. This includes exposure to the use of Building Information Modelling (BIM) in the measurement of quantities for construction works.

Learning Outcomes

At the end of the course, students are able to:

1. Define the objectives, principles and functions of the Standard Method of Measurement 2 (SMM2) for the frame, upper floor slab, staircase, door, window and finishes.
2. Apply principles of specification writing for the frame, upper floor slab, staircase, door, window and finishes.
3. Measure the quantities of the element of the frame, upper floor slab, staircase, door, window and finishes from drawings.

Assessment:

Continuous Assessment: 40%

Final Examination: 60%

Soft Skills: CT1, CT2, CT3, TS1, LL1, LL2

BIC 1006

3 credits

CONSTRUCTION TECHNOLOGY II**Synopsis of Course Contents**

The course will broaden student knowledge about current building technologies. This includes the site works, deep foundation, framework, renovation and demolition works and also pre and post-tension concrete and prefabrication work.

Learning Outcomes

At the end of the course, students are able to:

1. Identify the process and stage of building projects of small and medium enterprises
2. Explain the different types of construction methods and their applications in accordance with the specific requirements of each project
3. Apply knowledge in the field of building technology into quantity surveying field.

Assessment:

Continuous Assessment: 40%

Final Examination: 60%

Soft Skills: CS1, CS2, CS3, CT1, CT2, CT3, TS1, TS2

BIC 1007

2 credits

BUILDING SERVICES II**Synopsis of Course Contents**

Introduction to various types of mechanical and electrical systems in buildings such as power supply and lighting system, building security system, telecommunications system, mechanical transportation system, air-conditioning system, mechanical ventilation and building automation system.

Learning Outcomes

At the end of the course, students are able to:

1. Explain the various type of mechanical and electrical (M&E), plus other systems that are related to a building.
2. Identify the needs of the mechanical and electrical system within a building
3. Determine simple mechanical and electrical systems installed within a building.

Assessment:

Continuous Assessment: 40%

Final Examination: 60%

Soft Skills: CT1, CT2, CT3, TS1, TS2, LL1, LL2

BIC 1008

3 credits

CONSTRUCTION ECONOMICS I**Synopsis of Course Contents**

This course covers the construction and building economic that involves changes in design, planning and cost control. It also covers the role of the private and public sectors in economic development.

Learning Outcomes

At the end of the course, students are able to:

1. Identify the basic knowledge of macroeconomics.
2. Explain the basic principles of economics that impact national income through the development and construction industry.
3. Apply the macroeconomic theory to markets of the construction industry in the global perspective.

Assessment:

Continuous Assessment: 40%

Final Examination: 60%

Soft Skills: CT1, CT2, CT3, LL1, LL2, EM1, EM2

BIC 1009

3 credits

INTEGRATED PROJECT I**Synopsis of Course Contents**

Students will be given group assignments. The project assignment will be based on knowledge related to Building Construction Technology. The student will be guided and supervised by a supervisor. Every group will prepare a report and present their work at the end of the semester.

Learning Outcomes

At the end of the course, students are able to:

1. Identify the importance of integrating knowledge relating to quantity surveying.
2. Determine concepts, principles and techniques and appropriate knowledge
3. Apply knowledge and skills for problem-solving.

Assessment:

Continuous Assessment: 100%

Soft Skills: CS1, CS2, TS1, EM1

BIC 2001

4 credits

MEASUREMENT OF CONSTRUCTION WORKS III**Synopsis of Course Contents**

This course includes the principles and function of Standard Method of Measurement (SMM) for the roof, steel structure, piping works and external works. The course also covers the 'Building Information Modelling' (BIM) for the measurement of construction works.

Learning Outcomes

At the end of the course, students are able to:

1. Define the purpose, principles and functions of Standard Method of Measurement (SMM) for the roof, steel structure, piping works and external works.
2. Apply the principle of specification writing for the roof, steel structure, piping works and external works.
3. Apply skills of taking off quantities for construction works and estimating based on drawing for the roof, steel structure, piping works and external works.

Assessment:

Continuous Assessment:	40%
Final Examination:	60%
Soft Skills:	CT1, CT2, CT3, TS1, LL1, LL2

BIC 2002

3 credits

PROFESSIONAL PRACTICE I**Synopsis of Course Contents**

This course delivers an overview of the quantity surveying profession in respect of its responsibilities and roles in the public and private sectors. It covers various aspects of professional practice during the pre-contract stage from the inception till the preparation of contract document. The course will also cover the appointment, fees and professional ethics, administration of quantity surveying firms and procurement of contract. Reference will be made to the relevant provisions in the standard forms of building contract and related government circulars. Potential roles of quantity surveyors in any other industries will be explored. This course also covers 'Building Information Modelling' (BIM) in the administration of the construction contract.

Learning Outcomes

At the end of the course, students are able to:

1. Identify the responsibilities and roles of quantity surveyors in construction and other relevant industries.
2. Explain the professional practice and procedures at the pre-contract stage.
3. Solve problems related to the principles and procedures in the administration of construction contract.

Assessment:

Continuous Assessment:	40%
Final Examination:	60%
Soft Skills:	CT1, CT2, CT3, LL1, LL2, EM1, EM2

BIC 2003

3 credits

CONSTRUCTION TECHNOLOGY III**Synopsis of Course Contents**

This course extends the students' knowledge on the current application of construction technology. It includes external works, cladding and sustainability in building.

Learning Outcomes

At the end of the course, students are able to:

1. Identify the process of advance construction.
2. Explain the methods of construction in a specific building project.
3. Apply the construction technology knowledge in all areas related to quantity surveying.

Assessment:

Continuous Assessment: 40%

Final Examination: 60%

Soft Skills: CS1, CS2, CS3, CT1, CT2, CT3, TS1, TS2

BIC 2004

3 credits

CONSTRUCTION ECONOMICS II**Synopsis of Course Contents**

This course covers micro-economy, which discusses economic concepts that explain the characteristics of the construction industry and construction market. This course also covers development process and parties involved in the construction industry, building cost, value for money, design review, life cycle costing and buildability, supply and demand, construction firms theory, procurement and tendering process for the construction project, contract responsibility and the financial impact to the firm.

Learning Outcomes

At the end of the course, students are able to:

1. Describe the microeconomic theory from the perspective of the firm and construction project.
2. Explain the development implications and infrastructure market, procurement concept and transaction cost from the construction economic perspective.
3. Apply the microeconomic theory from the perspective of project, institution and market in the financial management of the construction industry.

Assessment:

Continuous Assessment: 40%

Final Examination: 60%

Soft Skills: CT1, CT2, CT3, LL1, LL2, EM1, EM2

BIC 2006
4 credits

MEASUREMENT OF CONSTRUCTION WORKS IV

Synopsis of Course Contents

This course includes the principles and function of Standard Method of Measurement (SMM) for piling works, excavation works, basement and demolitions works. The course also covers the 'Building Information Modelling' (BIM) for the measurement of construction works.

Learning Outcomes

At the end of the course, students are able to:

1. Define the purpose, principles and functions of Standard Method of Measurement (SMM) for piling works, excavation works, basement and demolitions works.
2. Apply the principle of specification writing for piling works, excavation works, basement and demolitions works.
3. Apply skills of taking off quantities for construction works and estimating based on drawing for piling works, excavation works, basement and demolitions works.

Assessment:

Continuous Assessment:	40%
Final Examination:	60%
Soft Skills:	CT1, CT2, CT3, TS1, LL1, LL2

BIC 2007
3 credits

PROFESSIONAL PRACTICE II

Synopsis of Course Contents

This course covers the knowledge of quantity surveyors during the post-contract stage. It includes various aspects of professional practice and procedures related to a progress payment, variation order, the extension of time and final account claims. Reference will be made to the relevant provisions in the standard forms of building contract and related government circulars.

Learning Outcomes

At the end of the course, students are able to:

1. Define the professional practice procedures at the post-contract stage.
2. Explain the professional practice and procedures at the post-contract stage.
3. Solve problems related to the principles and procedures in the administration of construction contract at the post-contract stage.

Assessment:

Continuous Assessment:	40%
Final Examination:	60%
Soft Skills:	CT1, CT2, CT3, LL1, LL2, EM1, EM2

BIC 2008

3 credits

CONSTRUCTION TECHNOLOGY IV**Synopsis of Course Contents**

This course extends the students' knowledge of the current application of civil construction technology. It includes specific structure and building, types and functions of specific buildings and civil engineering works and infrastructure construction works.

Learning Outcomes

At the end of the course, students are able to:

1. Define the process and stages of civil engineering construction works.
2. Explain various methods of construction and its specific application according to the needs of civil engineering construction works.
3. Apply the knowledge of civil engineering construction works.

Assessment:

Continuous Assessment: 40%

Final Examination: 60%

Soft Skills: CS1, CS2, CS3, CT1, CT2, CT3, TS1, TS2

BIC 2009

3 credits

ANALYSIS OF PRICES**Synopsis of Course Contents**

This course exposes students to the components of price rates and the theories and principles of price analysis for preliminaries, preambles and construction works.

Learning Outcomes

At the end of the course, students are able to:

1. Identify components of prices that comprise the analysis of price rates.
2. Apply analysis of price rates for preliminary works and preambles.
3. Describe and apply the analysis of price rates for construction works.

Assessment:

Continuous Assessment: 40%

Final Examination: 60%

Soft Skills: CT1, CT2, CT3, LL1, LL2, EM1, EM2

BIC 2010

3 credits

INTEGRATED PROJECT II**Synopsis of Course Contents**

Each student will be given group work coursework. The coursework is based on knowledge related to quantity surveying task for the post-contract stage. Each group of students is guided and supervised by a panel of project supervisors. Each group is required to submit a report and present their final output for the given coursework at the end of the semester.

Learning Outcomes

At the end of the course, students are able to:

1. Identify the importance of knowledge integration related to quantity surveying.
2. Define concept, principle, techniques and appropriate knowledge.
3. Apply skills and knowledge for problem-solving.

Assessment:

Continuous Assessment: 100%

Soft Skills: CS1, CS2, TS1, EM1

BIC 3001

4 credits

MEASUREMENT OF CONSTRUCTION WORKS V**Synopsis of Course Contents**

This course includes the Method Related Charges, methods of measurement based on the Malaysian Civil Engineering Standard Method of Measurement (MyCESMM). This course also covers Building Information Modelling (BIM) for the measurement of quantities for civil engineering works.

Learning Outcomes

At the end of the course, students are able to:

1. Define the purpose, principles, functions and measurement method of Malaysian Civil Engineering Standard Method of Measurement (MyCESMM).
2. Describe Method Related Charges and the preparation of Bills of Quantity for civil engineering works.
3. Apply skills of taking off quantities based on drawings for civil engineering works.

Assessment:

Continuous Assessment: 40%

Final Examination: 60%

Soft Skills: CT1, CT2, CT3, LL1, LL2

BIC 3002

2 credits

PROJECT MANAGEMENT I**Synopsis of Course Contents**

The course contents include concept, theory, principle, and elements of project management, management and social system, organizational and environmental system, information system and communication, distribution of task and role of the parties involved in the project. Other topics include the planning, execution, control and evaluation of construction projects, the success factors in project management and the behavioural dimensions and teamwork in project management. These include exposure to the use of Building Information Modelling (BIM) in project management.

Learning Outcomes

At the end of the course, students are able to:

1. Identify the project management concepts and processes involved in the construction project.
2. Identify the techniques of time management, cost and quality of construction works.
3. Explain the concept of project management in construction and development.

Assessment:

Continuous Assessment: 40%

Final Examination: 60%

Soft Skills: CS1, CS2, CS3, EM1, LS1, LS2

BIC 3003

3 credits

CONSTRUCTION LAW I**Synopsis of Course Contents**

This course covers the principles of construction law, roles and objectives of construction law, construction contracts and related problems. It includes law issues arising out of the application of Building Information Modelling. It also includes the Arbitration procedures that are governed by the standard forms of contract and the Arbitration Act. It will also cover alternative dispute resolution, types of claims and legal aspect of claims and types of repudiation.

Learning Outcomes

At the end of the course, students are able to:

1. Identify knowledge relating to construction law.
2. Explain law issues and problems involving the parties in the construction industry at the pre-contract stage.
3. Apply the skills on giving views that are proficient, logical and professionally sound on the issues relating to construction law at the pre-contract stage.

Assessment:

Continuous Assessment: 40%

Final Examination: 60%

Soft Skills: CT1, CT2, CT3, LL1, EM1, EM2

BIC 3004

3 credits

INTEGRATED PROJECT III**Synopsis of Course Contents**

Students will be given group assignments. The project assignment will be based on knowledge related Quantity Surveying at the post-contract stage. The student will be guided and supervised by a supervisor. Every group will prepare a report and present their work at the end of the semester.

Learning Outcomes

At the end of the course, students are able to:

1. Identify the importance of integrating knowledge relating to quantity surveying.
2. Determine concepts, principles and techniques and appropriate knowledge.
3. Apply knowledge and skills for problem-solving.

Assessment:

Continuous Assessment: 100%

Soft Skills: CS1, CS2, TS1, EM1

BIX 1002

3 credits

RESEARCH METHODOLOGY IN THE BUILT ENVIRONMENT**Synopsis of Course Contents**

This course provides basic groundings on how to conduct real estate research. It provides an introduction to the research methodology and research design.

Learning Outcomes

At the end of the course, students are able to:

1. Conduct literature reviews critically for research problems for the built environment.
2. Evaluate research methods in terms of their fit for various types of research for the built environment.
3. Develop a research proposal for the built environment.

Assessment:

Continuous Assessment: 100%

Soft Skills: CS1, CS2, CT1, CT2, CT3, CT6, LL1, LL2, LL3, EM1, EM2, EM3

BIC 3005

2 credits

PROJECT MANAGEMENT II**Synopsis of Course Contents**

Course content includes project management techniques and methods. This includes techniques, approaches and planning mechanisms, execution, control and construction project management processes and development. These include exposure to the use of Building Information Modelling (BIM) in project management.

Learning Outcomes

At the end of the course, students are able to:

1. Identify the project management concepts and processes involved in the construction project and development.
2. Explain the techniques of time management, cost and quality of construction work and development.
3. Apply the methods and mechanisms of project management in construction and development.

Assessment:

Continuous Assessment: 40%

Final Examination: 60%

Soft Skills: CS1, CS2, CS3, EM1, LS1, LS2, LS3

BIC 3006

2 credits

DATA ANALYSIS**Synopsis of Course Contents**

This course delivers the methodological and technical knowledge of a wide range of analytical methods used in data analysis. It provides the logical thinking and analysis of data in various forms and using a variety of qualitative and quantitative tools and techniques. The tools and techniques in this course include methods of grouping, structuring, sampling and presentation of data, tabling, frequency distribution, graphical representation, measures of location and deviation, ratio, percentage analysis and probability theories.

Learning Outcomes

At the end of the course, students are able to:

1. Identify the knowledge on theories, principles and concepts of the statistical methods, covering the use of quantitative and qualitative data analysis.
2. Apply theoretical and statistical methods in the process of analysing data for the purpose of addressing problems related to the use of data analysis in the context of the construction industry.
3. Evaluate strategic choices in arriving a decision that is logical and professionally.

Assessment:

Continuous Assessment: 40%

Final Examination: 60%

Soft Skills: CT1, CT2, CT3, TS1, TS2, LL1

BIC 3007

3 credits

CONSTRUCTION LAW II**Synopsis of Course Contents**

This course focuses on how the construction contract is formed as well as the rights and responsibilities of parties involved at the post-contract stage. It also includes reference towards provisions under standard forms of contract with emphasis on its position in relation to the law through an analysis of related law cases.

Learning Outcomes

At the end of the course, students are able to:

1. Identify knowledge regarding construction law and provisions in standard forms of contract.
2. Explain law issues and problems which involve the provisions in standard forms of contract at the post-contract stage.
3. Apply the skills on giving views that are proficient, logical and professionally sound on the issues relating to construction law at the post-contract stage.

Assessment:

Continuous Assessment:	40%
Final Examination:	60%
Soft Skills:	CT1, CT2, CT3, LL1, EM1, EM2

BIC 3008

4 credits

RESEARCH PROJECT**Synopsis of Course Contents**

This course will enable students to prepare a research report related to Quantity Surveying through the application of research methods.

Learning Outcomes

At the end of the course, students are able to:

1. Identify data collection methods and analysis that are appropriate.
2. Present and discuss the research findings and results.
3. Develop conclusion, implications, contributions and proposals for future research.

Assessment:

Continuous Assessment:	100%
Soft Skills:	CT1, CT2, CT3, LL1, LL2, LL3, EM1, EM2

BIC 4001

10 credits

INDUSTRIAL TRAINING**Synopsis of Course Contents**

This course extends the students' knowledge of construction practices, particularly in the quantity surveying firms. It exposes the students on the works procedure, the role of quantity surveyors in pre and post contract and communications with the construction clients and design team.

Learning Outcomes

At the end of the course, students are able to:

1. Apply technical and management skills from the classroom to the actual construction work environment.
2. Practise soft skills in the Quantity Surveying field.
3. Apply good work ethics and professional values in the real work environment.

Assessment:

Continuous Assessment: 100%

Soft Skills: KK1, EM1, EM2, LS1, LS2

BIX 1005

3 credits

PRINCIPLES OF MANAGEMENT**Synopsis of Course Contents**

This course introduces the history, principles and current issues in management studies and organization. It includes concepts of management, organization and teamwork.

Learning Outcomes

At the end of the course, students are able to:

1. Identify basic knowledge of management.
2. Explain the concepts and principles of management, forms of organization and human resource management.
3. Apply principles of management and decision making.

Assessment:

Continuous Assessment: 40%

Final Examination: 60%

Soft Skills: TS1, TS2, EM1, LS1, LS2

BIX 1006

3 credits

INTRODUCTION TO FINANCIAL MANAGEMENT AND ACCOUNTING**Synopsis of Course Contents**

This course explains the concepts and basic principles of accounting which include a balance sheet, ledger, trading account, and profit-and-loss account. The course also introduces financial management which provides an understanding of accounting ratios and the application of financial statement.

Learning Outcomes

At the end of the course, students are able to:

1. Explain basic principles in accounting and financial management in accordance with accounting standards.
2. Explain the theories, concepts and practice in accounting and financial management.
3. Apply theories and principles of accounting in various types of businesses.

Assessment:

Continuous Assessment: 40%

Final Examination: 60%

Soft Skills: LL1, LL2, KK1, EM1

BIC 2005

3 credits

INFORMATION TECHNOLOGY IN CONSTRUCTION**Synopsis of Course Contents**

This course will expose students to the uses of computer application in the construction industry with an emphasis on producing documents, estimating and cost control as well as project planning that plays an important role to ensure construction firms' remain competitive.

Learning Outcomes

At the end of the course, students are able to:

1. Explain the functions and benefits of computer application in enhancing the effectiveness of the construction process.
2. Identify the use of appropriate computer application in every stage in the construction process.
3. Apply computer application in the construction process.

Assessment:

Continuous Assessment: 100%

Soft Skills: CS1, CS2, CS3, CT1, CT2, CT3, LL1, LL2

BIC 2011

3 credits

RISK AND VALUE MANAGEMENT**Synopsis of Course Contents**

This course introduces the general theories of risk and value management as part of the process involved in the construction industry. Each element will be emphasized in terms of theory, methodology and practical applications for the project.

Learning Outcomes

At the end of the course, students are able to:

1. Identify the basic knowledge of risk and value management required in the construction industry.
2. Explain the concept and principles of risk and value management in the building industry.
3. Develop the skills and methods of implementation of risk and value management in the context of the construction industry.

Assessment:

Continuous Assessment: 40%

Final Examination: 60%

Soft Skills: CS1, CS2, CS3, CT1, CT2, CT3, TS1, TS2

BIC 2012

3 credits

BUILDING STRUCTURE**Synopsis of Course Contents**

Introduction to building structures and design. Building loading, forces and reaction in structures. Concurrent coplanar forces, non-current coplanar forces and moment of forces. Framed structures. Material strength and safety factors. Axial forces, shear force and bending moment.

Learning Outcomes

At the end of the course, students are able to:

1. Identify types of building structure and loads.
2. Calculate the effects of loads on the structure of the building.
3. Analyse effects of loads on the structure of the building.

Assessment:

Continuous Assessment: 40%

Final Examination: 60%

Soft Skills: CT1, CT2, TS1, TS2, LL1, EM1

URBAN & REGIONAL PLANNING

URBAN AND REGIONAL PLANNING

INTRODUCTION

The Bachelor of Urban and Regional Planning is accredited by the Board of Town Planners Malaysia. It was introduced in 2011 as a professional programme in line with the requirement of the Board of Town Planners Malaysia and Malaysian Institute of Planners. The programme obtained the approval from the Ministry of Higher Education in March 2011, and the student intake 2011/2012 as its pioneer batch.

The Urban and Regional Planning program in Universiti Malaya has given more emphasis on the roles of urban planning in promoting sustainable urban development for sustainable communities. The curriculum covers a wide range of contemporary topics and issues, including community development, development appraisal, environmental planning, and management. Apart from lectures and tutorials, there are plenty of opportunities for students to gain hands-on experiences through research projects and field trips. This affair enables the students to develop their creativity and critical thinking skills that can be utilized in their studies and their future careers.

In line with the University's vision to be a world-class university, students have the opportunities to have lectures from international visiting professors and these enable students to be updated with global and contemporary issues and debates in urban planning. The department's vision is to be an internationally renowned school of urban planning in research, innovation, publication and teaching.

The department aspires to be a center of excellence in urban and regional planning studies and research in the Asia-Pacific region. The region provides a living laboratory where urban and regional issues can be identified, analyzed and examined, and strategies formulated. With reference to future employment opportunities, the detailed scope of works and services of urban/town planner include:

- i. Prepare development plans such as national physical plan, structure plans, local plans and special area plan for the purposes of Town and Country Planning Act 1976;
- ii. Prepare and submit an application for planning permission for layout submission, erection of building and change of use of building or land in respect of a development, drawings and planning reports to any person or public authority to develop any land;
- iii. Carry out urban, rural and regional development planning studies, feasibility and viability studies, environmental impact assessment studies,

- visual impact assessment and social impact assessment relating to land use;
- iv. Urban design and advocacy planning; and
- v. Project management and other planning related services.

Program Aim

To produce professional town planning graduate who are creative, innovative, and critical in the development and implementation of sustainable spatial planning and competitive in managerial and technological aspect within the national and global contexts.

Program Learning Outcomes

At the end of the programme, graduates are able to:

- PO1 Acquire knowledge and good technical understanding as well as good management practices in urban and regional planning fields.
- PO2 Understanding and resolve urban and regional issues with critical, innovative and strategic thinking.
- PO3 Conduct study related to planning and development by using appropriate techniques.
- PO4 Apply relevant knowledge, social skills and work collaboratively in various contexts.
- PO5 Communicate ideas effectively to generate comprehensive and impactful outcomes.
- PO6 Master the information management skills and numeral literacy skills in urban and regional planning.
- PO7 Demonstrate quality leadership and accountability.
- PO8 Acquire consultancy, entrepreneurial and life-long learning skills that can be applied in various fields.
- PO9 Cultivate ethics and professionalism in strategic planning practices.

Program Structure

Bachelor of Urban & Regional Planning (B.URP)

(8 Semesters)

The Bachelor of Urban and Regional Planning programme is a four years programme (8 semesters) with a total of 139 credits. The programme consists of three components, namely, General Courses, Core Courses and Elective Courses which make up for 8.6%, 81.3% and 10.1% respectively from a programme's total 139 credits. The adoption of elective courses and the university's compulsory courses (which includes co-curriculum) is designed to expose students to the knowledge that is not strictly restricted to their chosen discipline.

As practiced universally, the teaching-learning methods of the programme comprise of the following components: lectures, tutorials/group discussions, studios, site investigation and site survey, laboratories, assignments, industrial training, projects and final-year academic project. Many of these components of teaching-learning modes are continually assessed via written or laboratory tests, quizzes, discussion groups and assignments.

For most courses, the formative component (continuous assessment) is made up of at least 40% of each course. Continuous assessment currently practiced includes test, tutorial, quiz, portfolio, assignment, oral presentation, direct observation, practical training, and studio projects. There are also courses that are based solely on formative assessment, for example, studios, Research Project (report and/or seminar presentation), and Industrial Training (report and assessment by supervisor). With the implementation of the MQF, student learning time such as preparation for tutorials, laboratory reports, final-year projects, industrial training, courses using studios with practical emphasis are factored in all courses.

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PROGRAMME STRUCTURE: BACHELOR OF URBAN AND REGIONAL PLANNING SESSION 2021/2022

CATEGORY	NO	CODE	SUBJECT	LEVEL I		LEVEL II		LEVEL III		LEVEL IV		TOTAL CREDIT	PRE-REQUISITE
				S1	S2	S1	S2	S1	S2	S1	S2		
COMPULSORY UNIVERSITY COURSES 15%	1	GLT XXXX	English I	2								2	
	2	GLT XXXX	English II		2							2	
	3	GIG1012/ **GLT1017	Philosophy and Current Issues (FIS)/** Basic Malay Language		2							2	
	4	GIG1003	Basic Entrepreneurship Culture			2						2	
	5		Student Holistic Empowerment (S.H. E.) I				2					2	
	6	GIG1013	Appreciation of Ethics and Civilisations (PEP)					2				2	
	7		Student Holistic Empowerment (S.H. E.) II					2				2	
	8		Student Holistic Empowerment (S.H. E.) III						2			2	
	9		Student Holistic Empowerment (S.H. E.) IV						2			2	
	10		Co-Curriculum							2		2	
PROGRAM CORE COURSES 85%	11	BID 1008	Planning Studio I- Fundamental Planning Skills	6								6	
	12	BID 1009	Computer Aided Graphic Design in Planning	3								3	
	13	BID 1010	History and Evolution of Urban Planning	3								3	
	14	BID 1011	Site Planning and Analysis	3								3	
	15	BID 1012	Planning Studio II - Site Planning and Design		6							6	BID 1008
	16	BID 1013	Land Use Planning		3							3	
	17	BID 1014	Transportation Planning and Traffic		3							3	
	18	BID 1015	Urban Design and Conservation		3							3	
	19	BID 2009	Planning Studio III - City Centre Studies			6						6	BID 1012
	20	BID 2010	Planning Laws			3						3	
	21	BID 2011	Planning Techniques			3						3	
	22	BID 2013	Urban Economics			3						3	
	23	BID 2014	Planning Studio IV – Local Development Planning				6					6	BID 2009

CATEGORY	NO	CODE	SUBJECT	LEVEL I		LEVEL II		LEVEL III		LEVEL IV		TOTAL CREDIT	PRE-REQUISITE	
				S1	S2	S1	S2	S1	S2	S1	S2			
	24	BID 2015	GIS and Urban Analytics				3					3		
	25	BID 2016	Planning Legislations and Governance				3					3		
	26	BID 2017	Quantitative Analysis in Planning				3					3		
	27	BID 2018	Sustainable Community Development				3					3		
	28	BID 3010	Planning Studio V – Regional Development Planning					6				6	BID 2014	
	29	BID 3011	Development and Property Appraisal					3				3		
	30	BID 3013	Rural and Regional Planning					3				3		
	31	BID 3014	Planning Studio VI - Township Appraisal						6			6	BID 3010	
	32	BID 3015	Housing, Planning and Sustainability						3			3		
	33	BID 3016	Planning Theory and Philosophy						3			3		
	34	BID 3017	Research Methodology						4			4		
	35	BID 4006	International Planning Practice							3		3		
	36	BID 4007	Academic Project								5	5	BID 3017	
	37	BID 4008	Professionalism, Ethics and Politics							3		3		
	38	BID 4009	Urban Management							3		3		
	39	BID 4010	Industrial Training								8	8	BID 4007	
PROGRAM ELECTIVE COURSES	40	BID 2012	Sustainable Tourism Planning			3						3		
	41	BID 2019	Technologies in Urban Planning											
	42	BID 3012	Environmental Studies					3				3		
	43	BID 3018	Communication in Planning											
TOTAL SUBJECT BREAKDOWN				TOTAL CREDITS	17	19	20	20	19	20	16	8	139	41
				TOTAL SUBJECTS	5	6	6	6	6	6	5	1	41	
				TOTAL UNIVERSITY COURSES	1	2	1	1	2	2	1	0	10	
				TOTAL PROGRAM COURSES	4	4	5	5	4	4	4	1	31	

Note:

* Exempted for non –Malaysian students and to be replaced with another Senate-approved university course.

** Course offered to non-Malaysian students

PROGRAMME STRUCTURE: BACHELOR OF URBAN AND REGIONAL PLANNING

COMPONENTS	YEAR 1 (Bachelor of Urban and Regional Planning)						TOTAL CREDIT	
	SEMESTER 1			SEMESTER 2				
	COURSE CODE	COURSE TITLE	CREDIT	COURSE CODE	COURSE TITLE	CREDIT		
Compulsory University Courses	GLTXXX	English I	2	GIG1012/ GLT1017	Philosophy and Current Issues (FIS) / Basic Malay Language*	2	6	
				GLTXXX	English II	2		
Program Core Courses	BID1008	Planning Studio I- Fundamental Planning Skills	6	BID1012	Planning Studio II - Site Planning and Design	6	30	
	BID1009	Computer Aided Graphic Design in Planning	3	BID1013	Land Use Planning	3		
	BID1010	History and Evolution of Urban Planning	3	BID1014	Transportation Planning and Traffic	3		
	BID1011	Site Planning and Analysis	3	BID1015	Urban Design and Conservation	3		
Program Elective Courses								
Total Credit			17	Total Credit			19	36

*Non Citizen

COMPONENTS	YEAR 2 (Bachelor of Urban and Regional Planning)						TOTAL CREDIT
	SEMESTER 3			SEMESTER 4			
	COURSE CODE	COURSE TITLE	CREDIT	COURSE CODE	COURSE TITLE	CREDIT	
Compulsory University Courses	GIG1003	Basic Entrepreneurship Culture	2				2
Compulsory University Elective Courses					Student Holistic Empowerment (S.H. E.) I	2	2
Program Core Courses	BID2009	Planning Studio III - City Centre Studies	6	BID2014	Planning Studio IV – Local Development Planning	6	33
	BID2010	Planning Laws	3	BID2015	GIS and Urban Analytics	3	
	BID2011	Planning Techniques	3	BID2016	Planning Legislations and Governance	3	
	BID2013	Urban Economics	3	BID2017	Quantitative Analysis in Planning	3	
				BID2018	Sustainable Community Development	3	
Program Elective Courses	*BID2012	Sustainable Tourism Planning	3				3
	*BID2019	Technologies in Urban Planning					
Total Credit			20	Total Credit		20	40

*Student need to choose one of the offered program elective subjects for the semester

COMPONENTS	YEAR 3 (Bachelor of Urban and Regional Planning)						TOTAL CREDIT
	SEMESTER 5			SEMESTER 6			
	COURSE CODE	COURSE TITLE	CREDIT	COURSE CODE	COURSE TITLE	CREDIT	
Compulsory University Courses	GIG1013	Appreciation of Ethics and Civilisations (PEP)	2				2
Compulsory University Elective Courses		Student Holistic Empowerment (S.H. E.) II	2		Student Holistic Empowerment (S.H. E.) III	2	6
					Student Holistic Empowerment (S.H. E.) IV	2	
Program Core Courses	BID3010	Planning Studio V – Regional Development Planning	6	BID3014	Planning Studio VI - Township Appraisal	6	28
	BID3011	Development and Property Appraisal	3	BID3015	Housing, Planning and Sustainability	3	
	BID3013	Rural and Regional Planning	3	BID3016	Planning Theory and Philosophy	3	
				BID3017	Research Methodology	4	
Program Elective Courses	*BID3012	Environmental Studies	3				3
	*BID3018	Communication in Planning					
Total Credit			19	Total Credit			39

* Student need to choose one of the offered program elective subjects for the semester

COMPONENTS	YEAR 4 (Bachelor of Urban and Regional Planning)						TOTAL CREDIT
	SEMESTER 7			SEMESTER 8			
	COURSE CODE	COURSE TITLE	CREDIT	COURSE CODE	COURSE TITLE	CREDIT	
Compulsory University Courses	GKA/GKI/ GKU/GKS/ GKK/GK	Co-curriculum	2				2
Compulsory University Elective Courses							
Program Core Courses	BID4006	International Planning Practice	3	BID4010	Industrial Training	8	22
	BID4007	Academic Project	5				
	BID4008	Professionalism, Ethics and Politics	3				
	BID4009	Urban Management	3				
Program Elective Courses							
Total Credit			16	Total Credit		8	24

TOTAL CREDIT: 139

PROGRAMME CORE COURSES

BID 1008

PLANNING STUDIO I: FUNDAMENTAL PLANNING SKILLS

6 credits

Synopsis of Course Contents

This course introduces design principles and basic design skills which are needed by an urban planner. The design skills include: Line drawing; Poster Lettering; Plan Colouring; Draughtsmanship; Sketches; Perspective Drawing; Texture's identification; Graphic Illustration. This course also allows skill acquisition which can be developed through the use of various drafting scales equipment, plan's enlargement & reduction techniques and Map Reading exercises. Students are required to work individually.

Learning Outcomes

At the end of the course, students are able to:

1. Explain the design fundamentals in the layout plan.
2. Describe the basic design principles in the layout plan.
3. Produce basic planning drawings to translate ideas in the layout plan.
4. Present ideas through graphic illustrations using suitable technique.

Assessment:

Continuous Assessment: 100%

BID 1009

COMPUTER AIDED GRAPHIC DESIGN IN PLANNING

3 credits

Synopsis of Course Contents

This course introduces the concepts of computer aided in graphic design and its application using various design software. This course is intended to familiarise students with basic aspect of AutoCAD and other design software, with an emphasised on graphic design applications to be used in urban and regional planning field.

Learning Outcomes

At the end of the course, students are able to:

1. Explain the basic concepts and techniques of computer aided graphic design in planning;
2. Describe the application of computer aided design within the context of urban planning; and
3. Using AutoCAD, Sketchup and Adobe Illustrator software in urban planning projects.

Assessment:

Continuous Assessment: 100%

BID 1010

3 credits

HISTORY AND EVOLUTION OF URBAN PLANNING**Synopsis of Course Contents**

This course focuses on the history and evolution of urban planning and practice in the world and Malaysia. It exposes the students to the form and planning of the world's first cities, innovation in terms of city and neighbourhood planning concepts until the early establishment of planning legislations during the Industrial Revolution era. The students will be exposed to the history of the establishment of urban planning practice and legislations in Malaysia until the formation of the existing urban planning system. Emphasis is also given to issues and trends in the urbanization process which contribute to the evolution of urban planning in Malaysia.

Learning Outcomes

At the end of the course, students are able to:

1. Explain the evolution of urban forms and planning at global level
2. Elaborate the history of planning in Malaysia; and
3. Explain the system and components of the modern urban planning in Malaysia.

Assessment:

Continuous Assessment 40%

Final Examination 60%

BID 1011

3 credits

SITE PLANNING AND ANALYSIS**Synopsis of Course Contents**

This course covers the aspect of site planning from the perspectives of urban and regional planning. The knowledge of site planning is very important to the professionals before any implementation of development projects could take place. The course introduces elements of site planning that begin with the recognising of site characteristics, conditions, problems and limitations. The identification of site potential for development requires examinations of surrounding development including elements of infrastructure, existing economic activities and local development policies that regulate urban land uses. The site planning knowledge was disseminated in consideration of urban and regional growth, environment from human perspectives, global sustainable development goal and planning ethics.

Learning Outcomes

At the end of the course, students are able to:

1. Determine and discuss site development problem & potential.
2. Apply the appropriate methodology for site planning.
3. Incorporate human and environmental considerations in site selection for development.

Assessment:

Continuous Assessment 40%

Final Examination 60%

BID 1012

6 credits

PLANNING STUDIO II – SITE PLANNING AND DESIGN

BID1008

Synopsis of Course Contents

The course major activities include the search for site and collection of relevant information from appropriate data sources; the site survey using appropriate techniques (check list, matrices) in the planning for site development; the site analysis encompassing topography, traffic circulation, surrounding development, tree preservation; the analysis of Development Potential and the proposals of Mitigating Measures of possible impacts. The course also requires good Report preparation and Layout Plan proposals. Students are required to work in groups and to do Project Presentation.

Learning Outcomes

At the end of the course, students are able to:

1. Describe the site planning design requirements through relevant technical process such as site measurement and analysis.
2. Determine the site issues based on urban planning perspective.
3. Select suitable design measures in the study site area.
4. Prepare lay-out plan for selected study site area.

Assessment:

Continuous Assessment 100%

BID 1013

3 credits

LAND USE PLANNING**Synopsis of Course Contents**

This course introduce the theory and practice of land use planning in urban environment. The term "land use" was determined as a part of social relations that define the way urban or region develop. Land use planning is understood in a holistic sense that integrating all built environment elements such as nature, human activity and the environment. The identification of potential development requires examinations of surrounding development including elements of infrastructure, existing economic activities and local development policies that regulate urban land uses. The introduction to land use planning will cover urban land use theory, urban land use component, land use planning models, land use zoning categories and codes (use class order). Discussion on site development issues will include topics of how land use planning was incorporating site development potentials and planning controls.

Learning Outcomes

At the end of the course, students are able to:

1. Elaborate the societal and political contexts that affect the land use planning.
2. Apply technique and method of land use analysis to support planning.
3. Explains the issues and potentials of land use zoning and classification in planning.

Assessment:

Continuous Assessment 40%
Final Examination 60%

BID 1014

3 credits

TRANSPORTATION PLANNING AND TRAFFIC**Synopsis of Course Contents**

This course will introduce students to transportation systems including public transportation and its impact on the urban planning system. The impact of transportation planning will be highlighted as the failure of proper planning will result in the failure of urban planning. Among aspects that will be discussed are transportation system requirements, travel demand, travel behaviour and sustainable transportation planning. Students are taught how to conduct traffic surveys as well as traffic impact assessment.

Learning Outcomes

At the end of the course, students are able to:

1. Describe the main aspects of transportation planning in the urban transportation system.
2. Explain the potential, issues and problems of transportation in urban planning.
3. Appraise travel demand and travel behaviour through traffic surveys.

Assessment:

Continuous Assessment	40%
Final Examination	60%

BID 1015

3 credits

URBAN DESIGN AND CONSERVATION**Synopsis of Course Contents**

This course involves a wide-ranging types and scope of tasks. It begins with the definition of urban design and followed by the discussion of urban design theories; principles involving inter-disciplinary nature that are shaped by economic, social and political forces. This course also includes the conservation aspects, the survey techniques and analysis.

Learning Outcomes

At the end of the course, students are able to:

1. Explain urban design principles in organising urban functions.
2. Identify influencing factors that affect urban design and conservation processes.
3. Determine the importance of urban design and conservation in planning.

Assessment:

Continuous Assessment	40%
Final Examination	60%

BID 2001

6 credits

PLANNING STUDIO III: CITY CENTRE STUDY

BID 1012

Synopsis of Course Contents

This course provides the students the knowledge and skills to prepare for planning permission application by focusing on a city centre as case study. The course introduces concepts and alternatives to city centre development and exposes the students to the issues and problems faced in a city centre. Eventually, the students will provide solutions to the issues and problems. The outputs of the course and assessment are made on the checklist for site visit, technical report, layout plan, Development Proposal Report and other requirements for planning permission application.

Learning Outcomes

At the end of the course, students are able to:

1. Explain city centre development concepts and alternatives;
2. Describe issues and problems of city centre;
3. Elaborate ideas to solve urban problems; and
4. Demonstrate the knowledge of preparing for planning permission.

Assessment:

Continuous Assessment 100%

BID 2010

3 credits

PLANNING LAWS**Synopsis of Course Contents**

This course emphasizes on Malaysian town and country planning legislations. In general, the students will be exposed to the land development and planning process based on the main acts such as National Land Code 1965 (Act 56), Town and Country Planning Act 1976 (Act 172) and Local Government Act 1976 (Act 171). Students will also be exposed to other planning acts such as Federal Territory Planning Act 1982 (Act 267) and planning ordinances used in Sabah and Sarawak. Case studies related to development and planning will be elaborated based on the legislation clauses and development context.

Learning Outcomes

At the end of the course, students are able to:

1. Explain the legislation system and source of power for land development and planning in Malaysia.
2. Describe planning procedures in Malaysia based on the planning legislations.
3. Elaborate the applications of planning legislations in land use developments through case studies.

Assessment:

Continuous Assessment 40%

Final Examination 60%

BID 2011

3 credits

PLANNING TECHNIQUES**Synopsis of Course Contents**

This course covers the topics related to analysis and techniques required in making decisions in the planning process. Students will be able to apply certain techniques that will be introduced including the basic planning requirement, forecasting, plan evaluation using cost-benefit analysis, balance sheets and goal achievement matrix. Students will also be able to apply the techniques through selected case studies. Furthermore, students will be introduced to special requirements in planning process i.e. the environmental and social impact assessment.

Learning Outcomes

At the end of the course, students are able to:

1. Describe various planning techniques in the planning process;
2. Use the techniques in the planning process; and
3. Differentiate the technique, implementation and resultant impact of planning process.

Assessment:

Continuous Assessment 40%

Final Examination 60%

BID 2012

3 credits

SUSTAINABLE TOURISM PLANNING (Elective Course)**Synopsis of Course Contents**

This course focuses on sustainable tourism development. Students are exposed to policy and agencies involved in tourism development. Students will learn about the considerations that need to be taken in the environmental, socioeconomic and social aspects and techniques used to ensure sustainable tourism planning and management by referring to local and foreign case studies.

Learning Outcomes

At the end of the course, students are able to:

1. Describe concepts and national tourism planning policy;
2. Apply models and techniques in tourism development; and
3. Analyse the environmental, socio-economic and sociocultural impacts of tourism development.

Assessment:

Continuous Assessment 40%

Final Examination 60%

BID 2013**URBAN ECONOMICS**

3 credits

Synopsis of Course Contents

This course will introduce students to the basic understanding of the urban economic structure and its changes; emphasising relevant issues as they relate to urban planning. The topics that will be covered include the significance of economic thinking in planning, an economic explanation for urban growth, the economics of urban land use, urban location decision and the economics of urban public intervention. Students will also learn the economic approach to selected urban problems such as congestion, crime, pollution etc.

Learning Outcomes

At the end of the course, students are able to:

1. Explain the location decision of economic activities in urban development;
2. Describe the economics of urban land use market in urban economy; and
3. Elaborate on public intervention in the urban economy.

Assessment:

Continuous Assessment	40%
Final Examination	60%

BID 2014**PLANNING STUDIO IV: LOCAL DEVELOPMENT PLANNING**

6 credits

BID 2009

Synopsis of Course Contents

This course covers the preparation of development plan based on the provisions under planning legislation for Act 172, Sabah Cap 141 and Sarawak Cap.87. It introduces students to the process of preparing public sector plans and the practices of making them, concentrating on either two main kinds of development plans: comprehensive local plan or strategic plan. The course will cover the investigation of many aspects such as housing, land use, transportation, environment and others. Modelling and forecasting techniques will be used to analyse the existing condition and predict the future requirements.

Learning Outcomes

At the end of the course, students are able to:

1. Understand the local government context in which development plans are made and used by assessment of planning issues, potentials and problems of the study area;
2. Discuss the broad type of development that should be provided in meeting local needs through various planning techniques and projections;
3. Identify project/program reflecting community/place uniqueness through community collaborative effort;
4. Recommend development strategies for the proposed area` for future sustainable development.

Assessment:

Continuous Assessment	100%
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BID 2015

3 credits

GIS AND URBAN ANALYTICS**Synopsis of Course Contents**

This course introduces the concepts of Geographic Information System (GIS) and its application in urban planning. Students will be exposed to data spatial concepts and methods of spatial data analysis in urban planning.

Learning Outcomes

At the end of the course, students are able to:

1. Explain the basic concepts and techniques of Geographic Information System (GIS) in urban planning;
2. Describe the application of GIS Analysis within the context of urban planning; and
3. Use GIS software in urban planning projects.

Assessment:

Continuous Assessment	100%
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BID 2016

3 credits

PLANNING LEGISLATIONS AND GOVERNANCE**Synopsis of Course Contents**

This course covers the contemporary legal framework within which urban planning and development practice take place. The aspect of discussion revolves around the legislation and governance that relates to planning and development practice in Malaysia. Students will be exposed to provisions and clauses related to urban planning in the selected acts. The course accentuated on matters involving development as well as current issues concerning urban planning. Detail analysis and discussion on various case studies is conducted to link urban planning and development practice with existing real-world situation.

Learning Outcomes

At the end of the course, students are able to:

1. Identify the law and regulation that affect the planning and development practice.
2. Examine related legislation and governance that can improve the planning practice and development process.
3. Demonstrate the ability to interpret legislation and governance practically through case studies analysis.

Assessment:

Continuous Assessment	40%
Final Examination	60%

BID 2017

3 credits

QUANTATIVE ANALYSIS IN PLANNING**Synopsis of Course Contents**

This course is designed to introduce students to commonly used statistical quantitative analysis in urban planning and research. Students will be exposed to the basic skills in statistical techniques as a means to communicate research findings effectively. Topics covered include types and sources of quantitative data, designing and administering questionnaire survey, basic descriptive and inferential statistics and the use of statistical software for quantitative analysis.

Learning Outcomes

At the end of the course, students are able to:

1. Explain the use of information and quantitative analysis in urban planning and research;
2. Analyse primary and secondary data through questionnaire survey in urban planning and research; and
3. Use suitable statistical techniques to analyse survey based data using statistical software in urban planning and research.

Assessment:

Continuous Assessment	40%
Final Examination	60%

BID 2018

3 credits

SUSTAINABLE COMMUNITY DEVELOPMENT**Synopsis of Course Contents**

The course introduces the concept, process dan method of sustainable community development through planning and physical development. It also provides an exposure to the students on the importance of identification of community needs in order to ensure that the sustainability of a community is not impacted by development. Students will also learn on the community development strategies through physical planning from the macro level which is at the policy making level right to the implementation level through the adoption of planning conditions and guidelines.

Learning Outcomes

At the end of the course, students are able to:

1. Explain the concept and importance of sustainable community development;
2. Apply the methods and techniques in community needs assessment and public consultation; and
3. Elaborate the strategies of sustainable community development through physical planning framework.

Assessment:

Continuous Assessment	40%
Final Examination	60%

BID 2019

3 credits

TECHNOLOGIES IN URBAN PLANNING (Elective Course)**Synopsis of Course Contents**

This course introduces technological diversity in urban planning. Students will be exposed to the technology used in urban planning. Among the technologies to be introduced in this course are technology in resource determination, collection, processing, management, and conversion of data into information. Methods of information dissemination to urbanites will be explored.

Learning Outcomes

At the end of the course, students are able to:

1. Explain the diverse technologies in urban planning;
2. Describe the latest technological applications in urban planning; and
3. Use technological applications in urban planning projects.

Assessment:

Continuous Assessment 100%

BID 3010

6 credits

PLANNING STUDIO V: REGIONAL DEVELOPMENT PLANNING

BID 2014

Synopsis of Course Contents

This course covers the preparation of development planning report at regional level which include state structure plan, master plans at city, state and transboundary scales as prescribed in the Town and Country Planning Act 1976 (Act 172), Federal Territory (Planning) Act 1982 (Act 267), State of Sabah Town and Country Planning Ordinance 2010 (Sabah Cap 141), Town and Country Planning Ordinance 1952 and other relevant statutory provisions.

Examination of content of the plan, the existing condition of case study and the future development prospect will be carried out through fieldwork (e.g. site survey, interviews with stakeholders, focus group discussion, briefing from planning agencies) and secondary data collection (e.g. relevant policy documents, published reports, unpublished documents). The course covers the sectoral investigation such as land use, housing, transportation, environment, tourism, commercial and industry. Models and forecasting techniques are employed to analyse the existing condition and predict the future requirements. Students will be working in groups to produce a draft development plan or master plan.

Learning Outcomes

At the end of the course, students are able to:

1. Describe the development planning at macro level;
2. Examine land development through resource planning;
3. Apply planning techniques to make future projections at macro level; and
4. Recommend strategic planning for regional development.

Assessment:

Continuous Assessment 100%

BID 3011

3 credits

DEVELOPMENT AND PROPERTY APPRAISAL**Synopsis of Course Contents**

This course will cover all the factors that impact on the decision-making process in urban development, including site appraisal, development appraisal and development finance. This course also examines the economic context for the creation of value, introduces the principles of property valuation, forms a clear understanding of the valuation process and applies appropriate basic valuation methods to appraise various types of property.

Learning Outcomes

At the end of the course, students are able to:

1. Discuss the real estate market conditions on the development process of a project;
2. Examine the social and economic dimensions of a property development project; and
3. Prepare the financial feasibility report for a property development project.

Assessment:

Continuous Assessment 40%

Final Examination 60%

BID 3012

3 credits

ENVIRONMENTAL STUDIES (*Elective Course)**Synopsis of Course Contents**

This course discusses important topics in environmental studies and exposes the students to environmental issues related to urbanization and climate change by referring to case studies locally and abroad. Discussions also emphasize on the importance of integrating environmental aspects in decision-making to achieve sustainable development through environmental impact assessment.

Learning Outcomes

At the end of the course, students are able to:

1. Describe the key concepts of environmental studies;
2. Discuss global environmental challenges including climate change, population growth, energy issues and food systems; and
3. Explain the environmental legislation in Malaysia and the processes of the environmental impact assessments.

Assessment:

Continuous Assessment 40%

Final Examination 60%

BID 3013

3 credits

RURAL AND REGIONAL PLANNING**Synopsis of Course Contents**

This course focus on the regional and rural planning as part of the town and country planning modules. It focusses on concepts and models of regional growth theories and models. It also explains the evolution and history of regional growth in post independent Malaysia. Related growth techniques and analytical approaches are also explained. The course clarifies the administrative framework of regional development in Malaysia.

Learning Outcomes

At the end of the course, students are able to:

1. Comprehend and explain rural and regional planning concept.
2. Relate growth theories in rural and regional planning; and
3. Apply analytical techniques in Malaysian rural and regional planning.

Assessment:

Continuous Assessment	40%
Final Examination	60%

BID 3014

6 credits

PLANNING STUDIO VI: TOWNSHIP APPRAISAL

BID 3010

Synopsis of Course Contents

The main emphasis of the studio is to expose the students to the methods and exercises involved in evaluating an existing development scheme of township scale. The students will be required to evaluate on how the township development has taken place and the issues associated to it. Based on present global and local agenda and trend, the students will need to develop an indicator-based sustainability assessment framework and recommend proposals that will reposition the township to ensure its economic vitality, without compromising the quality of the physical and social environment.

Learning Outcomes

At the end of the course, students are able to:

1. Appraise the development of a township based on the original and existing objectives, policies, strategies and development control;
2. Synthesize physical, social, and economic issues of a development scheme of township scale;
3. Develop sustainability assessment framework of a development scheme; and
4. Propose solutions and strategies to enhance a development scheme through sustainable and comprehensive concept and design.

Assessment:

Continuous Assessment	100%
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BID 3015

3 credits

HOUSING, PLANNING AND SUSTAINABILITY**Synopsis of Course Contents**

This course aims to provide a comprehensive understanding of Malaysia's housing system and its relationships with urban planning and the concepts of sustainable development. It discusses the theoretical and practical aspects of housing, making special reference to their relationships with urban planning and sustainable development. Major topics include the housing system concepts, the political economy of housing policies, land use planning and housing affordability, housing policy analyses, housing market analyses, and the application of the sustainable development perspective to housing analyses.

Learning Outcomes

At the end of the course, students are able to:

1. Explain the concept and issues of housing, both nationally and globally;
2. Examine the social, political, economic, policies and institutional structure within the context of housing management; and
3. Relate housing delivery system with sustainable housing concept in Malaysia.

Assessment:

Continuous Assessment	40%
Final Examination	60%

BID 3016

3 credits

PLANNING THEORY AND PHILOSOPHY**Synopsis of Course Contents**

The course focuses on selected classic and current debates and theories in planning, such as synoptic planning, disjointed incrementalism, mixed scanning, advocacy planning, communicative planning, collaborative planning, radical planning, and others. This course offers students a thought of classic and contemporary theories of planning. The logic behind the ideas, concepts and actions of planning is continuously challenged as planners try to balance the relationship between democracy, markets and government within the planning environment.

Learning Outcomes

At the end of the course, students are able to:

1. Describe various types of planning and theoretical development of scientific knowledge in urban and regional planning;
2. Apply the theories and models of planning in the urban and regional planning contexts; and
3. Comprehend past and present debates of planning as a basis for further reflections on future planning theory.

Assessment:

Continuous Assessment	40%
Final Examination	60%

BID 3017

4 credits

RESEARCH METHODOLOGY**Synopsis of Course Contents**

This course encompasses two parallel parts. The first part provides a theoretical background on the subject. It involves the exploration of suitable quantitative and qualitative research methods, analytical thinking, and literature review. The other part ends with successfully initiating an academic research project. This part requires students to work individually on the topic selected for the academic project in terms of conceptualizing problems from complex, real-world situations, identifying appropriate research questions, setting up appropriate research objectives, reviewing relevant literature and properly designing an ethical research project.

Learning Outcomes

At the end of the course, students are able to:

1. Perform literature review in planning research project.
2. Determine appropriate method and design that are suitable with the objectives and purpose of study.
3. Plan a research project based on the literature review and in relevance to the selected methods and design.

Assessment:

Continuous Assessment	100%
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BID 3018

3 credits

COMMUNICATION IN PLANNING (*Elective Course)**Synopsis of Course Contents**

The course provides exposure on the importance of effective communication in planning. It also provides an exposure to the students on the methods and techniques in communication to ensure that the plans that have been prepared can be conveyed effectively to the stakeholders and accepted well by the public.

Students will also learn on the public consultation strategies to ensure effective public participation.

Learning Outcomes

At the end of the course, students are able to:

1. Explain the importance of effective communication in planning;
2. Apply the methods and techniques of communication in planning;
3. Demonstrate ability to execute an effective communication plan

Assessment:

Continuous Assessment	40%
Final Examination	60%

BID 4006

3 credits

INTERNATIONAL PLANNING PRACTICE**Synopsis of Course Contents**

This course is introduced to the students to challenges and issues in cities around the world. Students will focus on case studies in Asia and beyond Asia in understanding international planning practice context through its physical planning and land uses, social and economic planning, environmental planning and transportation planning and others. Students will evaluate the planning practice in different perspectives with Malaysia urban planning practice systems.

Learning Outcomes

At the end of the course, students are able to:

1. To elaborate the planning practice system at international level.
2. To discuss issues and challenges of planning and development at international level.
3. To evaluate different planning practices at international level.

Assessment:

Continuous Assessment 100%

BID 4007

5 credits

ACADEMIC PROJECT

BID 3017

Synopsis of Course Contents

In this course the students are guided by lecturers to produce an academic project report based on the proposals drafted in the Research Methods course. The research work in this involves adequate data collection and analysis, discussion and conclusion through effective writing and visual communication.

Learning Outcomes

At the end of the course, students are able to:

1. Critically analyse issues and problems in the urban planning field.
2. Apply appropriate research methods and processes in urban planning.
3. Apply theoretical concepts in research.
4. Produce academic project report related to urban planning.

Assessment:

Continuous Assessment 100%

BID 4008

3 credits

PROFESSIONALISM, ETHICS AND POLITICS**Synopsis of Course Contents**

This course will discuss the urban and regional planning in practice and the functions of town planners as professionals. It focuses on the detailed understanding of the Town Planners Act 1995 and Code of Professional Conduct of Malaysian Institute of Planners with some references on planning practice in the United Kingdom. The discussions continue with the scope of works for town planners in the public sector and their roles in developing the community and their relations with other professionals in built environment. Discussions on the town planners' roles in the private sector will include the professional services, procedures in plan-making process and relations with stakeholders.

Learning Outcomes

At the end of the course, students are able to:

1. Explain professional codes and ethics in town planning profession;
2. Evaluate the methods and regulations in town planning profession; and
3. Compare the roles and functions of different professionals in development projects.

Assessment:

Continuous Assessment	40%
Final Examination	60%

BID 4009

3 credits

URBAN MANAGEMENT**Synopsis of Course Contents**

The course will impart knowledge on good urban management through discussion of concepts, theories and principles of good urban governance. Other aspects that will be discussed are the roles and functions of key players in urban management; the relationship between urban planning and urban management; urban services and service deliveries (urban asset management); urban management issues and problems; capacity building and public participation; and target, urban indicator and performance management.

Learning Outcomes

At the end of the course, students are able to:

1. Elaborate the scope and resources of urban management;
2. Analyse the issues, problems and needs related to urban management; and
3. Assess the current practice and innovations in urban management.

Assessment:

Continuous Assessment	40%
Final Examination	60%

BID 4010

8 credits

INDUSTRIAL TRAINING

BID 3014

Synopsis of Course Contents

Industrial training will introduce students to a professional working environment with applying comprehensive urban planning skills. Students will be exposed to the actual working environment by practicing interpersonal skills and effective teamwork.

Learning Outcomes

At the end of the course, students are able to:

1. Apply classroom learning in the actual working environment of urban planning;
2. Train interpersonal and technical skills related to urban planning;
3. Practice work ethics and professionalism in a real working environment; and
4. Appreciate urban planning profession in the context of built environment.

Assessment:

Continuous Assessment 100%

REAL ESTATE

REAL ESTATE

Introduction

The Bachelor of Real Estate (formerly the Bachelor of Estate Management) was first offered in July 1996 as a programme under the Built Environment Division, Faculty of Engineering. This programme was later elevated to the status of a department, in February 1998, in order to strengthen its management. The Built Environment Division itself was upgraded to a full-fledged faculty, in May 2000, to become known as the Faculty of Built Environment. In July 2016, the nomenclature of the original programme was changed to keep abreast with developments in the real estate field.

The Bachelor of Real Estate programme, Universiti Malaya is run by the Department of Real Estate. The department comprises 10 academic staff to oversee the Bachelor of Real Estate programme as well as Master of Real Estate, a master by coursework programme. The Bachelor of Real Estate has received accreditation from local and international bodies namely the Malaysian Public Service Department, Board of Valuers, Appraisers, Estate Agents and Property Managers Malaysia (BOVAEP) and the Royal Institution of Chartered Surveyors (RICS) United Kingdom, with input from the Royal Institution of Surveyors Malaysia (RISM). As the syllabus for the Bachelor of Real Estate received recognition by these professional bodies, this programme is professionally recognised locally and internationally.

Students will gain real life property development and consultancy experience during the Integrated Project course which in the past has involved sites in countries such as Brunei, Hong Kong, China, Philippines, Vietnam, Indonesia and Taiwan.

Programme Aim

To produce graduates in the estate management field who are professional, holistic, balanced and ethical, able to perform real estate consultancy effectively and able to face technical and management challenges in the national and global context.

Programme Learning Outcomes

At the end of the programme, graduates are able to:

- PLO1 Explain fundamental concepts and knowledge related to real estate.
- PLO2 Apply principles related to real estate to resolve various real estate issues.
- PLO3 Demonstrate practical skills in real estate related fields.

- PLO4 Display communication ability with real estate community and the public.
- PLO5 Use analytical and technology application to solve real estate problems.
- PLO6 Organize relevant information in real estate services.
- PLO7 Integrate real estate managerial skills into entrepreneurship.
- PLO8 Integrate professional ethics when performing services to cater for the needs of clients, profession and society.

Programme Structure

Bachelor of Real Estate

(7 + 1 Semesters)

The programme is accredited by the Board of Valuers, Appraisers, Estate Agents and Property Managers Malaysia (BOVAEP) and by world-renowned professional body in the United Kingdom, the Royal Institution of Chartered Surveyors (RICS). This programme has been designed to incorporate ideas and contributions from the Royal Institution of Surveyors Malaysia (RISM).

The programme structure comprises a full time study term of 3½ years, the successful completion of which confers upon the candidate a Bachelor's degree in Real Estate. The Bachelor of Real Estate is a full-time programme with a total credit requirement of 124 credit hours, within a minimum period of 7+1 semesters and a maximum period of 11 semesters. Out of the 124 credit hours, 12 credit hours comprises University courses, 98 credit hours of programme core courses, 8 credits Elective Courses (SHE) and 6 credits Programme Elective courses (KEP).

Upon graduation and in order to be registered as a Valuer, the candidate is required to accumulate a further 2 years of practical professional experience under the supervision of a Registered Valuer before sitting for the Test of Professional Competence (TPC) conducted by BOVAEP. Prior to this, the candidate is required to be provisionally registered with the Board during this entire period of training. Being an accredited programme by the BOVAEP, the graduate of the Bachelor of Real Estate is eligible for direct registration with the Board as Probationary Valuer (PV) or Probationary Estate Agent (PEA).

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PROGRAMME STRUCTURE: BACHELOR OF REAL ESTATE (SESSION 2021/2022)

CATEGORY	NO	CODE	SUBJECT	YEAR I		YEAR II		YEAR III			YEAR IV	TOTAL CREDIT	PRE-REQUISITE
				S1	S2	S3	S4	S5	S6	SPECIAL SEM	S7		
UNIVERSITY COURSES	1	GIG1012/ **GLT1017	Philosophy and Current Issues (FIS) / ** Basic Malay Language	2								12	
	2	GLTxxxx	English 1	2									
	3	GLTxxxx	English 2		2								
	4	GIG1013	Appreciation of Ethics and Civilizations		2								
	5	GIG1003	Basic Entrepreneurship Culture			2							
	6	GKXXXX	Co-curriculum				2						
PROGRAMME CORE COURSES	7	BIE1007	Introduction to real estate valuations	4								98	
	8	BIE1008	Introduction to law	3									
	9	BIE1009	Fundamentals of Economics	3									
	10	BIE1010	Accounting	3									
	11	BIE1011	Market Approach and Cost Approach in Real Estate Valuation		4								
	12	BIE1012	Land Law		3								
	13	BIE1013	Principle and Practice of Urban Planning		3								
	14	BIE1014	Basic Building Technology		3								
	15	BIE2013	Income Approach of Real Estate Valuation I			4							
	16	BIE2014	Real Estate Law			3							
	17	BIE2015	Land Economics			3							
	18	BIE2016	Building Maintenance and Services			3							
	19	BIE2017	Income Approach of Real Estate Valuation II				4						
	20	BIE2018	Strata Law				3						
	21	BIE2019	Real Estate Investment Analysis				3						
	22	BIE2020	Property Management				4						
	23	BIE3009	Property Taxation dan Land Acquisition					3					
	24	BIE3010	Real Estate Marketing and Agency					4					
	25	BIE3011	Real Estate Market Analysis					3					
	26	BIE3012	Research Methodology					2					
	27	BIE3013	Real Estate and Community					2					

CATEGORY	NO	CODE	SUBJECT	YEAR I		YEAR II		YEAR III			YEAR IV	TOTAL CREDIT	PRE-REQUISITE
				S1	S2	S3	S4	S5	S6	SPECIAL SEM	S7		
	28	BIE3014	Real Estate Finance Analysis						3				
	29	BIE3015	Corporate Real Estate Asset Management						3				
	30	BIE3016	Real Estate Development Appraisal						3				
	31	BIE3017	Ethics and Professional Practice						4				
	32	BIE3018	Real Estate Academic Project						4				BIE3012
	33	BIE3019	Integrated Real Estate Project							4			BIE3011 & BIE3016
	34	BIE4002	Industrial Training								10		BIE3019
PROGRAMME ELECTIVE COURSE**	35		SHE 1	2								14	
	36		SHE 2		2								
	37		SHE 3				2						
	38		SHE 4						2				
	39		KEP 1			3							
	40		KEP 2					3					
TOTAL CREDITS				19	19	18	18	17	19	4	10	124	
TOTAL SUBJECTS				7	7	6	6	6	6	1	1	40	

Notes:

** Program Elective Course (KEP) Choose 2 from 3 of the following

- BIE2021 Facilities Management – 3 credits
- BIE2022 Statistics for Real Estate – 3 credits
- BIE2023 Business Valuation– 3 credits

PROGRAMME STRUCTURE: BACHELOR OF REAL ESTATE (SESSION 2021/2022)

COMPONENTS	YEAR 1 (Bachelor of Real Estate)					
	SEMESTER 1			SEMESTER 2		
	COURSE CODE	COURSE TITLE	CREDIT	COURSE CODE	COURSE TITLE	CREDIT
Compulsory University Courses	GIG1012/ **GLT1017	Philosophy and Current Issues (FIS) / ** Basic Malay Language	2	GIG1013	Appreciation of Ethics and Civilizations	2
	GLTxxxx	English 1	2	GLTxxxx	English 2	2
Programme Core Courses	BIE1007	Introduction to real estate valuations	4	BIE1011	Market Approach and Cost Approach in Real Estate Valuation	4
	BIE1008	Introduction to law	3	BIE1012	Land Law	3
	BIE1009	Fundamentals of Economics	3	BIE1013	Principle and Practice of Urban Planning	3
	BIE1010	Accounting	3	BIE1014	Basic Building Technology	3
Elective Courses		SHE 1	2		SHE 2	2
TOTAL CREDIT			19	TOTAL CREDIT		19

* Exempted for non –malaysian students and to be replaced with another senate-approved university course.

** course offered to non-malaysian students

COMPONENTS	YEAR 2 (Bachelor of Real Estate)					
	SEMESTER 3			SEMESTER 4		
	COURSE CODE	COURSE TITLE	CREDIT	COURSE CODE	COURSE TITLE	CREDIT
Compulsory University Courses	GIG1003	Basic Entrepreneurship Culture	2	GKXXXX	Co-curriculum	2
Programme Core Courses	BIE2013	Income Approach of Real Estate Valuation I	4	BIE2017	Income Approach of Real Estate Valuation II	4
	BIE2014	Real Estate Law	3	BIE2018	Strata Law	3
	BIE2015	Land Economics	3	BIE2019	Real Estate Investment Analysis	3
	BIE2016	Building Maintenance and Services	3	BIE2020	Property Management	4
Elective Courses	BIExxxx	KEP 1	3		SHE 3	2
TOTAL CREDIT			18	TOTAL CREDIT		18

COMPONENTS	YEAR 3 (Bachelor of Real Estate)								
	SEMESTER 5			SEMESTER 6			SPECIAL SEMESTER		
	COURSE CODE	COURSE TITLE	CREDIT	COURSE CODE	COURSE TITLE	CREDIT	COURSE CODE	COURSE TITLE	CREDIT
University Courses									
Core Courses	BIE3009	Property Taxation dan Land Acquisition	3	BIE3014	Real Estate Finance Analysis	3	BIE3019	Integrated Real Estate Project	4
	BIE3010	Real Estate Marketing and Agency	4	BIE3015	Corporate Real Estate Asset Management	3			
	BIE3011	Real Estate Market Analysis	3	BIE3016	Real Estate Development Appraisal	3			
	BIE3012	Research Methodology	2	BIE3017	Ethics and Professional Practice	4			
	BIE3013	Real Estate and Community	2	BIE3018	Real Estate Academic Project	4			
Elective Courses	BIExxxx	KEP 2	3		SHE 4	2			
TOTAL CREDIT			17	TOTAL CREDIT			19		4

COMPONENTS	YEAR 4 (Bachelor of Real Estate)		
	SEMESTER 7		
	COURSE CODE	COURSE TITLE	CREDIT
University Courses			
Programme Core Courses	BIE4002	Industrial Training	10
Programme Elective Courses			
TOTAL CREDIT			10

OVERALL TOTAL CREDIT: **124**

Program Elective Course (KEP) Choose 2 from 3 of the following

- BIE2021 Facilities Management – 3 credits
- BIE2022 Statistics for Real Estate – 3 credits
- BIE2023 Business Valuation– 3 credits

PROGRAMME CORE COURSES

BIE1007

INTRODUCTION TO REAL ESTATE VALUATION

4 credits

Synopsis of Course Contents

This course provides students with understanding of fundamental concepts and core principles of real estate valuation. It exposes students to the characteristics of land, property and the property market, principles of valuation, role and functions of the valuer and valuation process. It introduces students to the professions' acts and standards. Students will also learn valuation mathematics and basic measurement computation.

Learning Outcomes

At the end of the course, students are able to:

1. Identify the fundamentals of real estate
2. Describe the process of real estate valuation
3. Perform calculations using valuation mathematics

Assessment:

Continuous assessment	50%
Final examination	50%

BIE1008

INTRODUCTION TO LAW

3 credits

Synopsis of Course Contents

This course focuses on the Malaysian Legal System, tort and contract. It includes the principles and sources of Malaysian law, processes, systems and procedures, common law, statute and equity. This course covers the law of contract (Contracts Act 1950) emphasizing on capacity, consideration, intention to create legal relation and methods of discharging of contracts. It will also include the types of remedies. The law of torts including negligence, nuisance and trespass to land.

Learning Outcomes

At the end of the course, students are able to:

1. Identify the components of the Malaysian Legal System.
2. Illustrate the framework of the Malaysian legal system.
3. Describe the principles of law of tort and contract.

Assessment

Continuous Assessment	40%
Final Examination	60%

BIE1009

3 credits

FUNDAMENTALS OF ECONOMICS**Synopsis of Course Contents**

This course introduces the students with the knowledge in micro and macroeconomics. Microeconomic focuses on parts of the economy which are individuals, firms, and industries. Macroeconomic looks at the economy as a whole, such as growth in the standard of living, unemployment, inflation and two types of Macroeconomics policies: monetary policy and fiscal policy.

Learning Outcomes

At the end of the course, students are able to:

1. Identify the fundamentals of microeconomics and macroeconomics
2. Determine the influence of government intervention on the economy
3. Describe economic situation by using economic theory.

Assessment:

Continuous Assessment 40%

Final Examination 60%

BIE1010

3 credits

ACCOUNTING**Synopsis of Course Contents**

This course provides the students an introduction to financial accounting; accounting concepts; double-entry bookkeeping; preparation of balance sheets and profit and loss accounts; sources of finance for companies; accounting ratios and the application of financial statements.

Learning Outcomes

At the end of the course, students are able to:

1. Explain accounting concepts, principles and conventions.
2. Record accounting transactions.
3. Describe financial accounting information.

Assessment:

Continuous Assessment 40%

Final Examination 60%

BIE1011

4 credits

MARKET APPROACH AND COST APPROACH IN REAL ESTATE VALUATION**Synopsis of Course Contents**

This course provides the foundation in understanding and application of two important valuation approaches i.e. Market/Comparison Approach and Cost Approach. Students will be able to apply the approaches in determining the market value for various purposes.

Learning Outcomes

At the end of the course, students are able to:

1. Explain the fundamentals of the Market Approach and Cost Approach.
2. Determine the market value of real estate using the Market Approach and Cost Approach.
3. Describe the contents of a valuation report.

Assessment:

Continuous Assessment	60%
Final Examination	40%

BIE1012

3 credits

LAND LAW**Synopsis of Course Contents**

The course offers an insight into the primary land legislation in Malaysia i.e. the National Land Code 1965 together with related state land rules. The course emphasises on the land administration system, land disposal, title particulars, dealings and restrictions to dealings, and land development matters.

Learning Outcomes

At the end of the course, students are able to:

1. Explain the land law provisions related to land development.
2. Apply land law to other aspects of real estate.
3. Relate land law provisions to land development.

Assessment:

Continuous Assessment	40%
Final Examination	60%

BIE1013

3 credits

PRINCIPLE AND PRACTICE OF URBAN PLANNING**Synopsis of Course Contents**

This course provides a theoretical and practical understanding of urban planning. It is divided into three major aspects: the planning theories and models, development plans and development control. The students will gain the knowledge in planning matters related to real estate development.

Learning Outcomes

At the end of the course, students are able to:

1. Explain the theory of urban planning related to real estate development.
2. Use planning standards and technical requirements in assessing layout plan.
3. Relate the planning standards and application procedures in complying with planning permission requirements.

Assessment:

Continuous Assessment	50%
Final Examination	50%

BIE1014

3 credits

BASIC BUILDING TECHNOLOGY**Synopsis of Course Contents**

This course provides students with knowledge in building structure, materials and construction methods. It includes building components and stages of building construction. It also introduces the students to the calculation of the building component cost.

Learning Outcomes

At the end of the course, students are able to:

1. Explain terminologies and components in building construction
2. Determine different types of building material with reference to building structure
3. Show methods of building construction.

Assessment:

Continuous Assessment	50%
Final Examination	50%

BIE2013

4 credits

INCOME APPROACH OF REAL ESTATE VALUATION I**Synopsis of Course Contents**

The course covers the Investment Method of valuation for different types of property. It includes the conventional Term and Reversion and Hardcore/Layer methods, together with the Discounted Cash Flow (DCF) Technique. It also provides students knowledge in Premium, Surrender and Leaseback and Marriage Valuation.

Learning Outcomes

At the end of the course, students are able to:

1. Identify various interests for valuation of real estate
2. Apply the concept of investment method in Real Estate Valuation
3. Explain the principles of investment method in valuing a range of interests in real estate.

Assessment:

Continuous Assessment	60%
Final Examination	40%

BIE2014

3 credits

REAL ESTATE LAW**Synopsis of Course Contents**

The course provides students knowledge in real estate law including Environmental Quality Act 1974 (together with Environmental Quality Order 1987), Street, Drainage and Building Act 1974 and Uniform Building By-Laws 1984, Local Government Act 1976, National Heritage Act 2005 and Housing Development (Control and Licensing) Act 1966. The course emphasises on the period before and after completion of development.

Learning Outcomes

At the end of the course, students are able to:

1. Identify the legal framework in real estate law.
2. Determine the different law provisions during the real estate construction period.
3. Describe the importance of various law provisions after the real estate construction period.

Assessment:

Continuous Assessment	40%
Final Examination	60%

BIE2015

3 credits

LAND ECONOMICS

Synopsis of Course Contents

This course provides an understanding of economics and the structure of the real estate market. It constitutes a range of economics theories and concepts related to both urban and rural settings. This course employs economic approaches to explain urbanisation and its related problems and solutions.

Learning Outcomes

At the end of the course, students are able to:

1. Explain economic principles and institutional concepts which guide the use of land and real estate.
2. Apply theories of land economics to understand the changing spatial dimensions of real estate markets.
3. Relate economic theories to land use and problems concerning real estate markets.

Assessment:

Continuous Assessment	50%
Final Examination	50%

BIE2016

3 credits

BUILDING MAINTENANCE AND SERVICES

Synopsis of Course Contents

This course provides a foundation in building maintenance and services. It covers key maintenance aspects such as maintenance planning, strategies and operation including building defects. It also exposes students to the various components of building services such as plumbing and sanitary systems, mechanical transportation, fire-fighting system, communication systems, air conditioning system and security system and automation system. The course will guide the students on the preparation of Building Maintenance Report.

Learning Outcomes

At the end of the course, students are able to:

1. Identify types of defect, their causes and remedies for buildings.
2. Describe the building maintenance and building services system.
3. Prepare a Building Maintenance Report.

Assessment:

Continuous Assessment	60%
Final Examination	40%

BIE2017

4 credits

INCOME APPROACH OF REAL ESTATE VALUATION II**Synopsis of Course Contents**

This course covers the valuation of special properties using Profits Method. It also covers valuation of land with development potential using Residual Method. Students will be able to apply the approaches in determining the market value for various purposes.

Learning Outcomes

At the end of the course, students are able to:

1. Identify the types of real estate suitable for Profits Method and Residual Method
2. Apply the concept of Profits Method and Residual Method in real estate valuation
3. Explain the principles of Profits Method and Residual Method in valuing a range of interests in real estate

Assessment:

Continuous Assessment	60%
Final Examination	40%

BIE2018

3 credits

STRATA LAW**Synopsis of Course Contents**

The course provides students knowledge in strata development legislations which comprise the Strata Titles Act 1985 (Act 318) and Strata Management Act 2013 (Act 757). The course emphasises on the strata title issuance procedure, components of strata development, management body (types, formation, functions and power) and strata tribunal. This course also exposes students to strata management practices.

Learning Outcomes

At the end of the course, students are able to:

1. Explain the strata law provisions related to strata title and management.
2. Relate strata law to other aspects of real estate.
3. Apply the above knowledge in considering requirements and restrictions to be complied with in strata development.

Assessment:

Continuous Assessment	50%
Final Examination	50%

BIE2019

3 credits

REAL ESTATE INVESTMENT ANALYSIS**Synopsis of Course Contents**

This course provides an understanding of various types of real estate investment, real estate investment analysis techniques and risk elements in investment. The course also exposes the students to Portfolio Theory, Capital Budgeting and Capital Structure Policy.

Learning Outcomes

At the end of the course, students are able to:

1. Explain the principles of real estate investment.
2. Apply relevant techniques to analyse investment.
3. Justify the real estate investment decision.

Assessment:

Continuous Assessment	40%
Final Examination	60%

BIE2020

4 credits

PROPERTY MANAGEMENT**Synopsis of Course Contents**

This course provides knowledge on theories and concepts of actual management and maintenance of different types of properties such as residential, commercial, retail and industrial properties. It also refers to the act, rules and standards outlined by the Board of Valuers, Appraisers, Estate Agents and Property Managers.

Learning Outcomes

At the end of the course, students are able to:

1. Identify the management functions and their relation to property management
2. Describe various roles of property manager and the scope of work for property management
3. Prepare Property Management Case Study Report.

Assessment:

Continuous Assessment	60%
Final Examination	40%

BIE2021

3 credits

FACILITIES MANAGEMENT**Synopsis of Course Contents**

This course provides students knowledge in facilities management (FM), its concepts, scope, important functions and classification of tasks. It also exposes students to knowledge on the knowledge on different types of FM services and its supporting roles in the business of the organisation through strategic FM and performance management.

Learning Outcomes

At the end of the course, students are able to:

1. Explain the concept and the scope of facilities management
2. Differentiate the facilities management roles and functions at the strategic, tactical and operational levels and facility
3. Prepare the facilities management report for the different types of building.

Assessment

Continuous Assessment 60%

Final Examination 40%

BIE2022

3 credits

STATISTICS FOR REAL ESTATE**Synopsis Of Course Contents**

This course provides students with the fundamentals of statistics. It includes an introduction to basic theory and statistical concepts for application in real estate. The topics include describing data types and variables, descriptive statistics and inferential statistical technique.

Learning Outcomes

At the end of the course, students are able to:

1. Explain descriptive and inferential statistics by reasoning and visualizing data.
2. Apply the basics of inferential statistics by making valid generalizations from sample data.
3. Analyse data using descriptive and inference statistics in the context of real estate.

Assessment:

Continuous Assessment 60%

Final Examination 40%

BIE2023

3 credits

BUSINESS VALUATION**Synopsis of Course Contents**

This course provides a core understanding of the business valuation. The students will be exposed to financial statement analysis, risk, goodwill and intangible assets for valuation purposes. Students will apply appropriate valuation techniques for valuation of various types of businesses. appropriate valuation techniques for valuation of various types of businesses.

Learning Outcomes

At the end of the course students will be able to:

1. Explain the approaches to value business entities.
2. Relate the importance of goodwill and intangible assets in valuing the business.

Assessment:

Continuous Assessment 60%

Final Examination 40%

BIE3009

3 credits

PROPERTY TAXATION DAN LAND ACQUISITION**Synopsis of Course Contents**

This course provides basic understanding of legislation related to property taxation and land acquisition. This course consists of related legal statutes: Local Government Act 1976, Town and Country Planning Act 1976, Stamp Duty Act 1949, Real Property Gains Tax Act 1967 and Land Acquisition Act 1960. This course also introduces valuation practice related to taxation and acquisition.

Learning Outcomes

At the end of the course, students are able to:

1. Describe the legislative provisions related to property taxation & land acquisition.
2. Relate the provisions of taxation and land acquisition laws with property valuation practice.
3. Use appropriate valuation methods to evaluate various types of property for taxation and land acquisition purposes.

Assessment:

Continuous Assessment 60%

Final Examination 40%

BIE3010

3 credits

REAL ESTATE MARKETING AND AGENCY**Synopsis of Course Contents**

This course provides a theoretical foundation to the knowledge of marketing in real estate. The course also exposes the students to the principles of marketing and their application to real estate profession in accordance to relevant regulations such as Malaysian Estate Agency Standards and guidelines and circulars by the governing body.

Learning Outcomes

At the end of the course, students are able to:

1. Explain the scope and the principles of marketing.
2. Apply the estate agency practice in accordance to legislation and standards.
3. Integrate principles of marketing into estate agency practice.

Assessment:

Continuous Assessment 40%

Final Examination 60%

BIE3011

3 credits

REAL ESTATE MARKET ANALYSIS**Synopsis of Course Contents**

The course exposes the students to the requirements of real estate market research. It provides an understanding of market potential and marketability analysis. It focuses on market research for various types of development. The course also includes the financial assessment of the product mix formulated from the research outcomes.

Learning Outcomes

At the end of the course, students are able to:

1. Explain the principles of real estate market research.
2. Apply the techniques used in real estate market research.
3. Propose the product mix and financial assessment based on the research outcomes.

Assessment:

Continuous Assessment 60%

Final Examination 40%

BIE3012

2 credits

RESEARCH METHODOLOGY**Synopsis of Course Contents**

This course provides an understanding and guidance on research and research methodology. Students are provided with the knowledge on literature review and the design of research framework. At the end of this course, the students will be able to prepare a research proposal.

Learning Outcomes

At the end of the course, students are able to:

1. Review relevant literature for the proposed study
2. Propose a significant research problem with research questions, aim, objectives and significance of study
3. Adopt suitable methodology for the proposed study

Assessment:

Continuous Assessment 100%

BIE3013

2 credits

REAL ESTATE AND COMMUNITY**Synopsis of Course Contents**

This course exposes students to community service and volunteerism. Students need to plan and implement community engagement programs in groups. Students are also required to propose real estate-based solution to community problems.

Learning Outcomes

At the end of the course, students are able to:

1. Identify community issues in relation to real estate.
2. Apply real estate knowledge to the community.
3. Propose real estate-based solution to community problems.

Assessment:

Continuous Assessment 100%

BI3014

3 credits

REAL ESTATE FINANCE ANALYSIS**Synopsis of Course Contents**

This course provides an understanding of the types of real estate finance system available at global and Malaysian contexts. It also exposes the students to different types of conventional and Islamic mortgages and the process used by financial institutions in Malaysia in determining the financial position of the bridging and end financing of a development project.

Learning Outcomes

At the end of the course, students are able to:

1. Explain the types of real estate finance system available at global and Malaysian contexts.
2. Compare the mortgage instruments used in conventional loans and Islamic finance.
3. Apply the resources evaluated by financial institutions in determining the bridging and end finances.

Assessment:

Continuous Assessment 40%

Final Examination 60%

BIE3015

3 credits

CORPORATE REAL ESTATE ASSET MANAGEMENT**Synopsis of Course Contents**

This course provides an understanding on the management and strategic planning of corporate real estate assets. This course introduces the tools and techniques to develop corporate real estate asset management (CREAM) strategies. The course also covers procurement analysis, corporate relocation, space strategy and corporate real estate asset performance measurement.

Learning Outcomes

At the end of the course, students are able to:

1. Explain the roles of corporate real estate asset in an organisation.
2. Describe the strategic decision-making process in corporate real estate asset management.
3. Integrate techniques and analysis required to manage corporate real estate assets.

Assessment:

Continuous Assessment 60%

Final Examination 40%

BIE3016

4 credits

REAL ESTATE DEVELOPMENT APPRAISAL**Synopsis of Course Contents**

The course introduces the students to real estate development process. It also exposes the students to the development cycle, structure and agencies in the development and redevelopment of urban area. The course also requires the students to apply the skills and knowledge of property market study in assessing the feasibility of the project.

Learning Outcomes

At the end of the course, students are able to:

1. Explain the concepts of development and redevelopment.
2. Describe the stages involved in development process
3. Propose a feasible development for a subject site.

Assessment:

Continuous Assessment 60%

Final Examination 40%

BIE3017

4 credits

ETHICS AND PROFESSIONAL PRACTICE**Synopsis of Course Contents**

The course introduces ethics and professional practices stipulated by the Valuers, Appraisers, Estate Agents and Property Managers Act 1981 and Rules, Malaysian Valuation Standards, Property Management Standards and Malaysia Estate Agency Standards.

Learning Outcomes

At the end of the course, students are able to:

1. Describe the acts, rules, standards, guidelines and body that regulate the real estate practice.
2. Apply the processes and procedures in compliance with the professional legislation related to real estate.
3. Integrate professional ethics in real estate practice

Assessment:

Continuous Assessment 40%

Final Examination 60%

BIE3018

4 credits

REAL ESTATE ACADEMIC PROJECT**Synopsis of Course Contents**

This is the second stage of the research project, which requires the students to produce the academic project report under lecturer supervision.

Learning Outcomes

At the end of the course, students are able to:

1. Write a literature review of the study
2. Apply the appropriate research design to the study
3. report the research findings related to real estate.

Assessment:

Continuous Assessment 100%

BIE3019

4 credits

INTEGRATED REAL ESTATE PROJECT**Synopsis of Course Contents**

This course requires students to conduct a project that integrates various aspects of real estate knowledge including planning, law, economics, finance and valuation. This project will lead to the preparation of a project report.

Learning Outcomes

At the end of the course, students are able to:

1. Apply the advanced knowledge within the realm of real estate.
2. Integrate the concepts, principles, techniques, and academic knowledge gained to resolve given problems.
3. Prepare an integrated project report.

Assessment:

Continuous Assessment 100%

BIE4002

10 credits

INDUSTRIAL TRAINING**Synopsis of Course Contents**

Students are required to undergo a structured training programme at corporate organisations or public agencies. In this module, the industry plays a role in providing practical training to students. The industry supervisor will give feedback/comments to the department on the students' performance.

Learning Outcomes

At the end of the course students are able to:

1. Apply real estate knowledge into working practice.
2. Demonstrate the skillset acquired from the programme in the assigned job function.
3. Display interpersonal and communication skills during the.

Assessment:

Continuous Assessment 100%

