



UNIVERSITI
MALAYA

Faculty of Built Environment



UNDERGRADUATE

HANDBOOK
SESSION 2022/2023

**UNDERGRADUATE
HANDBOOK
SESSION 2022/2023**

MESSAGE FROM THE DEAN

Assalamu'alaikum Warahmatullahi Wabarakatuh and Salam Sejahtera

Selamat datang to the world's top 100 architecture and built environment faculty as ranked by the QS World University Rankings by Subject in 2022.

You are now officially a part of Universiti Malaya's community, a member of the Faculty of Built Environment (FBE)!



Congratulations and I would like to extend my warmest welcome to all new students of the Faculty of Built Environment for the academic year 2022/2023. On behalf of the entire FBE community, I am thrilled that you have chosen Universiti Malaya, and specifically FBE to start your journey in the quest for knowledge. I can assure you that this will not only be an exciting journey of pursuing an education degree but also a new and enriching experience of your life.

For the past two years, students and youths across the globe have been affected by the restricted movements resulting from the COVID-19 outbreak. Face-to-face, online, and blended education has become part of educational institutions' new norm. E-Learning especially, has also become one of the key components in delivering academic programmes. This, however, is unable to replace the importance of face-to-face intellectual and social interactions.

As Malaysia moved into the endemic phase in April 2022, you are the first post-pandemic batch that we physically welcome in FBE.

FBE offers a comprehensive range of undergraduate degree programmes that are distinctive within Malaysia and the South East Asia region within the Ministry of Higher Education's Malaysia Education Blueprint 2015-2025. We blend top teaching and learning facilities, state-of-the-art technology and stimulating academic programmes to produce highly sought-after graduates in the fields of Architecture, Building Surveying, Quantity Surveying, Real Estate and Urban and Regional Planning. In fact, our programmes are accredited by the Malaysian Qualifying Agency (MQA) as well as local and international professional bodies, which is an indication of quality. These programmes bring theory to practise through rigorous curricula and unique undergraduates-tailored teaching and learning opportunities led by experts in their fields. We are confident that we provide not only opportunities for students to excel personally and academically but also an environment that augments leadership, creativity, entrepreneurship, teamwork and communication skills.

Once again, let me welcome you to FBE where you will be holistically developed as confident, innovative, knowledgeable and future-ready professionals, possessing what we call UM DNA.

Good luck and enjoy your studies!

Professor Sr Dr. Anuar Alias
Dean

UNIVERSITI MALAYA

QS UNIVERSITY RANKINGS

MALAYSIA



ASIA



WORLD



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INTRODUCTION

Initially started with the Architecture programme at the Faculty of Engineering in 1995 and later established as the Faculty of Built Environment (FBE) in 2000, 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 offers five undergraduate professional programmes tailored to meet the nation's development 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 has been 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 has been 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 (in Malay known as Lembaga Perancang Bandar Malaysia or "LPBM").

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 two postgraduate research programmes namely PhD in Built Environment and Master of Built Environment. Additionally, FBE also offers four 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, whereas MPM is accredited by the Project Management Institute (PMI) from the United States.

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 been occupying 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

MANAGEMENT OF FACULTY CHART



PROFESSOR Sr DR. ANUAR ALIAS
Dean



PROFESSOR Sr Ts. DR. AZLAN SHAH ALI
Deputy Dean
(Higher Degree)



ASSOCIATE PROFESSOR TPr. DR. GOH HONG CHING
Deputy Dean
(Undergraduate)



Sr DR. HASNIYATI HAMZAH
Deputy Dean
(Student Affairs)



DR. ASRUL MAHJUDDIN RESSANG AMINUDDIN
Deputy Dean
(Research & Development)



RAFIZA HASHIM
Manager
(Administration)



Ar. DR. HELENA AMAN HASHIM
Head
Dept. of Architecture



Sr DR. RAHA SULAIMAN
Head
Dept. of Building Surveying



ASSOCIATE PROFESSOR Sr DR. OTHMAN MOHAMED
Head
Dept. of Quantity Surveying



Sr DR. AINORIZA MOHD AINI
Head
Dept. of Real Estate



DR. NIKMATUL ADHA NORDIN
Head
Dept. of Urban & Regional Planning



NOR AZLINA ABDULLAH
Senior Assistant Registrar



MOHD NORAZLIN MANSOR
Senior Assistant Registrar

ACADEMIC SESSION 2022/2023

SEMESTER I		
Orientation Week of Welcome - WOW	1 week*	09.10.2022 - 16.10.2022
Lectures	7 weeks*	17.10.2022 - 04.12.2022
Mid Semester II Break	1 week	05.12.2022 - 11.12.2022
Lectures	7 weeks*	12.12.2022 - 29.01.2023
Revision Week	1 week*	30.01.2023 - 05.02.2023
Semester I Final Examination	2 weeks*	06.02.2023 - 19.02.2023
Semester Break	3 weeks*	20.02.2023 - 12.03.2023
	<hr style="width: 50%; margin: 0 auto;"/> 22 weeks <hr style="width: 50%; margin: 0 auto;"/>	
SEMESTER II		
Lectures	6 weeks*	13.03.2023 - 23.04.2023
Mid Semester II Break	1 week	24.04.2023 - 30.04.2023
Lectures	8 weeks*	01.05.2023 - 25.06.2023
Revision Week	1 week	26.06.2023 - 02.07.2023
Semester II Final Examination	2 weeks	03.07.2023 - 16.07.2023
Semester Break	1 week*	17.07.2023 - 23.07.2023
	<hr style="width: 50%; margin: 0 auto;"/> 19 weeks <hr style="width: 50%; margin: 0 auto;"/>	
SEMESTER BREAK		
Break	9 weeks*	17.07.2023 - 17.09.2023
SPECIAL SEMESTER		
Lectures	7 weeks*	24.07.2023 - 10.09.2023
Special Semester Final Examination	1 week	11.09.2023 - 17.09.2023
	<hr style="width: 50%; margin: 0 auto;"/> 8 weeks <hr style="width: 50%; margin: 0 auto;"/>	

Note:

- (1) Course Registration (Module) schedule: <https://umsitsguide.um.edu.my>
 (*) The Academic Calendar has taken into account public and festive holidays:

Maulidur Rasul (9 October 2022)
 Deepavali (24 October 2022)
 Christmas Day (25 December 2022)
 New Year (1 January 2023)
 Chinese New Year (22 & 23 January 2023)
 Federal Territory Day (1 February 2023)
 Thaipusam (4 February 2023)
 Nuzul Al-Quran (8 April 2023)

Eidul Fitri (22 & 23 April 2023)
 Labour Day (1 May 2023)
 Wesak Day (4 May 2023)
 His Majesty's King's Birthday (5 June 2023)
 Eidul Adha (29 June 2023)
 Awal Muharam (19 July 2023)
 National Day (31 August 2023)
 Malaysia Day (16 September 2023)

(16.06.2022)

ADMINISTRATION MEMBERS

DEAN'S OFFICE



Professor Sr Dr. Anuar Alias
Dean
Tel: 03 - 7967 5395
E-mail: anuar_a@um.edu.my



Rafiza Hashim
Manager (Administration)
Tel: 03 - 7967 5304
E-mail: rafiza_hashim@um.edu.my



Nor Azlina Abdullah
Senior Assistant Registrar (Undergraduate)
Tel: 03 - 7967 5394
E-mail: inazlina@um.edu.my



Mohd Norazlin Mansor
Senior Assistant Registrar (Postgraduate)
Tel: 03 - 7967 4449
E-mail: muhammad@um.edu.my



Syamsul Arief Mohd Mokhtar
Assistant Administrative Officer
Tel: 03 - 7967 5320
E-mail: s_arief@um.edu.my



Norhayati Mat
Office Secretary
Tel: 03 - 7967 5395
E-mail: yatiey@um.edu.my

SUPPORTING STAFF



Hamisah Redzwan
Assistant Information Technology
Officer
Tel: 03 - 7967 6857
E-mail: hamisah@um.edu.my



Afidah Adiat
Office Secretary
Deputy Dean (Research)
Tel: 03 - 7967 7673
E-mail: cdah@um.edu.my



Salmizah Samsudin
Office Secretary
Deputy Dean (Undergraduate)
Tel: 03 - 7967 5372
E-mail: miza_s@um.edu.my



Nabilah Ahmad
Assistant Office Secretary
Deputy Dean (Postgraduate)
Tel: 03 - 7967 6880
E-mail: nabilahahmad@um.edu.my



Syedi Muhamad
Assistant Engineer
Tel: 03 - 7967 5374
E-mail: syedi@um.edu.my



Ahmad Fauzi Mohammad Ashri
Assistant Engineer
Tel: 03 - 7967 6887
E-mail: ahmadfauzi@um.edu.my



Mohd Annuar Ja'afar
Assistant Information Technology
Officer
Tel: 03 - 7967 4498
E-mail: annuar@um.edu.my



Anis Amija Amiruldin
Assistant Information Technology
Officer
Tel: 03 - 7967 4498
E-mail: ol_anyss@um.edu.my



**Muhammad Daim Zuhair Che
Mat**
Assistant Architecture Officer
Tel: 03 - 7967 5374
E-mail: daim@um.edu.my



Nur Shuhada Hilal
Assistant Science Officer
Tel: 03 - 7967 6889
E-mail: nurshuhadahilal@um.edu.my



Nurulfazila Mohd Sajuti
 Assistant Science Officer
 Tel: 03 - 7967 7610
 E-mail: nurulms@um.edu.my



Norizan Abd. Raji
 Senior Administrative Assistant
 (Clerical and Operational)
 Dept. of Urban & Regional
 Planning
 Tel: 03 - 7967 5320
 E-mail: norizanabd@um.edu.my



Rosaida Zebedi
 Senior Administrative Assistant
 (Clerical and Operational)
 (Postgraduate)
 Tel: 03 - 7967 6856
 E-mail: rose_aida@um.edu.my



Hasnita Mohd Zhari
 Senior Administrative Assistant
 (Clerical and Operational)
 Dept. of Architecture
 Tel: 03 - 7967 6807
 E-mail: hasrh@um.edu.my



Norizan Mat Saman
 Senior Administrative Assistant
 (Clerical and Operational)
 (Postgraduate)
 Tel: 03 - 7967 6856
 E-mail: izan2080@um.edu.my



Nor'aidah Mohd Ibrahim
 Senior Administrative Assistant
 (Clerical and Operational)
 Dept. of Real Estate
 Tel: 03 - 7967 6841
 E-mail: noraidah@um.edu.my



Norhisham Mohamed Halim
 Senior Administrative Assistant
 (Clerical and Operational)
 (Human Resources)
 Tel: 03 - 7967 6899
 E-mail: shamz@um.edu.my



Norazmah Osman
 Senior Administrative Assistant
 (Finance)
 Tel: 03 - 7967 5334
 E-mail: azmah@um.edu.my



Muhammad Afiq bin Jasmuri
 Administrative Assistant
 (Clerical and Operational)
 Quantity Surveying
 Tel: 03 - 7967 6841
 E-mail: afiqjasmuri@um.edu.my



Norlina Mohamad Istar
 Senior Administrative Assistant
 (Clerical and Operational)
 (Postgraduate)
 Tel: 03 - 7967 6856
 E-mail: nor_lina@um.edu.my



Zarina Mohd Yunus
Senior Administrative Assistant
(Clerical and Operational)
Building Surveying
Tel: 03 - 7967 5320
E-mail: zarina71@um.edu.my



Mohammad Rentah
Operational Assistant
Tel: 03 - 7967 7955
E-mail: zezul@um.edu.my



**Mohd. Shezul Shaheen Bin
Mohd. Adnan**
Operational Assistant
Tel: 03 - 7967 7955
E-mail: shezul@um.edu.my

UNIVERSITY COURSES

STUDENT HOLISTICS EMPOWERMENT

Student Holistic Empowerment (SHE) courses are offered to all Universiti Malaya students. These courses function as the building blocks for the formation of a special set of Graduate Student Attributes (GSA) or commonly known as the UM DNA. It consists of a set of humanistic values that enriches the heart and soul of every student, complemented by enriching essential skills, thinking skills, digital skills, and knowledge on global issues. Through careful selection of SHE courses, students will be able to develop 21st century skills, discover their potential and nurture their passion and talents. SHE courses will help them prepare for challenges and opportunities at the university and beyond.

Students will develop vital skills to succeed in their studies, career and most importantly in life, through four (4) subject clusters as follows:

1. Thinking Matters;
2. Technology, Artificial Intelligence and Data Analytics;
3. Emotional, Physical and Spiritual Intelligence; and
4. Global Issues and Community Sustainability.

The sequence of SHE courses to be registered by students depends on the programme structure. Students are strongly advised to plan ahead the courses that they want to select. As much as possible, please try to select courses from other faculties to explore other perspectives that can contribute to personal and professional development.

GIG1003
2 credits

BASIC ENTREPRENEURSHIP ENCULTURATION

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 entrepreneurships, 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; and
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 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 formats. Evaluation of information obtained and the preparation of reference list is also emphasised.

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; and
3. 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; and
3. Show effective communication skills with the community.

Assessment:

Continuous Assessment	100%
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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; and
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; and
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%

GLT1017
2 credits

BASIC MALAY LANGUAGE

Synopsis of Course Contents

This course emphasis mastering 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 the course, students are able to:

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

Assessment:

Continuous Assessment	60%
Final Exam	40%

GLT1018
2 credits

PROFICIENCY IN 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. Identify information in short, simple reading texts;
2. Present ideas related to everyday topics; and
3. Use grammar correctly to express ideas.

Assessment:

Continuous Assessment	60%
Final Exam	40%

GLT1019
2 credits

LET'S SPEAK

Synopsis of Course Contents

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.

Learning Outcomes

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

1. Organise a speech in stages;
2. Apply appropriate skills and strategies when delivering a short speech; and
3. Present a short speech.

Assessment:

Continuous Assessment	100%
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GLT1020
2 credits

FUNDAMENTAL WRITING

Synopsis of Course Contents

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

Learning Outcomes

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

1. Write short, connected texts on familiar subjects; and
2. Organise ideas effectively for different purposes.

Assessment:

Continuous Assessment	100%
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GLT1021
2 credits

PROFICIENCY IN ENGLISH II

Synopsis of Course Contents

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.

Learning Outcomes

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

1. Write clear connected texts on a wide range of topics;
2. Present ideas and opinions clearly and coherently; and
3. Interpret information from texts on various topics.

Assessment:

Continuous Assessment	60%
Final Exam	40%

GLT1022
2 credits

SPEAK UP

Synopsis of Course Contents

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.

Learning Outcomes

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

1. Present ideas clearly and accurately; and
2. Employ appropriate communication strategies to converse effectively.

Assessment:

Continuous Assessment	100%
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GLT1023
2 credits

EFFECTIVE WORKPLACE WRITING

Synopsis of Course Contents

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.

Learning Outcomes

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

1. Use appropriate format and language structures in correspondence writing; and
2. Apply appropriate tone and style according to purposes of correspondence.

Assessment:

Continuous Assessment	100%
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GLT1024
2 credits

PROFICIENCY IN ENGLISH III

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 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.

Learning Outcomes

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

1. Demonstrate an understanding of complex texts on concrete topics;
2. Write clear, detailed texts on a wide range of subjects; and
3. Share opinions fluently and spontaneously.

Assessment:

Continuous Assessment	60%
Final Exam	40%

GLT1025
2 credits

EFFECTIVE ORAL COMMUNICATION

Synopsis of Course Contents

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.

Learning Outcomes

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

1. Write relevant outlines for presentations;
2. Present an impromptu speech; and
3. Adhere to appropriate strategies in oral communication.

Assessment:

Continuous Assessment 100%

GLT1026
2 credits

WRITING AT THE WORKPLACE

Synopsis of Course Contents

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.

Learning Outcomes

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

1. Write texts using appropriate tone and style;
2. Complete an informal report for workplace purposes; and
3. Prepare a formal report for workplace purposes.

Assessment:

Continuous Assessment 100%

GLT1027
2 credits

ADVANCED ORAL COMMUNICATION

Synopsis of Course Contents

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.

Learning Outcomes

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

1. Integrate the effective use of language structures in communication;
2. Present a persuasive speech; and
3. Develop appropriate interpersonal communication skills.

Assessment:

Continuous Assessment 100%

GLT1028
2 credits

ADVANCED BUSINESS WRITING

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 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.

Learning Outcomes

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

1. Apply appropriate features of effective business writing;
2. Prepare documents common in business writing; and
3. Produce a report for workplace purposes.

Assessment:

Continuous Assessment 100%

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 English (Academic)
5. **FCE** - Cambridge English: First
6. **GCE (A LEVELS)** - General Certificate of Education (A Level), University of Cambridge
7. **IGCSE/GCSE (O LEVEL)** - International General Certificate of Secondary Education / International General Certificate of Secondary Education (O Level), University of Cambridge

**UNIVERSITY COURSE (ENGLISH COMMUNICATION PROGRAMME)
FACULTY OF LANGUAGES AND LINGUISTICS
LIST OF COURSES TO BE COMPLETED BY STUDENTS**

PATH 1	PATH 2	PATH 3	PATH 4
<ul style="list-style-type: none"> • MUET Band 2 (2008 – 2020) • MUET Band 2 & 2.5 (2021) • 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 (2008 – 2020) • MUET Band 3 & 3.5 (2021) • 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 (2008 – 2020) • MUET Band 4 & 4.5 (2021) • 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 (2008 – 2020) • MUET Band 5 & 5+ (2021) • 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 two (2) courses (2 courses x 2 credits each) from chosen PATH			
<p><u>COMPULSORY</u></p> <ul style="list-style-type: none"> • GLT1018 – Proficiency in English I 	<p><u>COMPULSORY</u></p> <ul style="list-style-type: none"> • GLT1021 – Proficiency in English II 	<p><u>COMPULSORY</u></p> <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* <p>*(Students can only register for one course per semester)</p>
<p>** CHOOSE ONE:</p> <ul style="list-style-type: none"> • GLT1019 – Let’s Speak • GLT1020 – Fundamental Writing 	<p>** CHOOSE ONE:</p> <ul style="list-style-type: none"> • GLT1022 – Speak Up • GLT1023 – Effective Workplace Writing 	<p>** CHOOSE ONE:</p> <ul style="list-style-type: none"> • GLT1025 – Effective Oral Communication • GLT1026 – Writing at the Workplace 	

*** Kursus ini mempunyai Pra Syarat dan hanya boleh didaftar 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.*

DESCRIPTION OF UNIVERSITY ENGLISH LANGUAGE COURSES

NO.	CODE & COURSE NAME / 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 (2008 – 2020) • MUET Band 2 & 2.5 (2021) • 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
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 (2008 – 2020) • MUET Band 3 & 3.5 (2021) • 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 <ul style="list-style-type: none"> • 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 <ul style="list-style-type: none"> • Pass GLT1021 with grade C

NO.	CODE & COURSE NAME / NO. OF CREDITS	SYNOPSIS	LEVEL OF REQUIRED PROFICIENCY
7.	GLT1024 - Proficiency in English III <ul style="list-style-type: none"> • 2 Credits • 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 (2008 – 2020) • MUET Band 4 & 4.5 (2021) • 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 <ul style="list-style-type: none"> • 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 <ul style="list-style-type: none"> • Pass GLT1024 with grade C
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 & 6 (2008 – 2020) • MUET Band 5 & 5+ (2021) • 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)
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.	

CEFR: Common European Framework of Reference for Languages

GENERAL INFORMATION

STUDENT AWARDS (UNIVERSITY LEVEL)

Student Awards	Notes
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;▪ 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; and▪ No outstanding debt to the University.
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.

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's Office **LATEST BY FRIDAY OF WEEK 4 IN THE 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 (1/3) of the total credit hours of the programme of study concerned.

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:

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

- (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 <https://myisis.um.edu.my> using siswa mail account.
- (b) Students who fail to complete the Course and Teaching Evaluation System (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) All students are required to register for the courses within the period prescribed every semester through <http://maya.um.edu.my>.
- (b) Registration for any course must be completed before the start of a semester. Any student who does not complete 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.

7. ATTENDANCE IN PROGRAMME OF STUDY

- (a) It is compulsory for a student to attend all teaching and learning activities related to the programme of study.
- (b) A student who does not attend any teaching and learning activities is required to inform the reason for absence to the lecturer/ instructor immediately together with the relevant supporting documents.

8. APPEAL AGAINST EXAMINATION RESULTS

- (a) A student who is not satisfied with any examination results including the continuous assessment component and/or final examination of the course may appeal for a review of the examination results. The appeal shall be made within seven (7) days from the official date of announcement of the 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 of 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's Office together with a copy of the receipt of the payment for the appeal made.

9. GRADING SCHEME

The passing grade for all courses is grade C. The official University grades including the marks and their meaning are as follows:

Grade	Marks	Grade Point	Meaning
A+	90.00 — 100.00	4.0	High Distinction
A	80.00 — 89.99	4.0	Distinction
A–	75.00 — 79.99	3.7	Distinction
B+	70.00 — 74.99	3.3	Good
B	65.00 — 69.99	3.0	Good
B–	60.00 — 64.99	2.7	Good
C+	55.00 — 59.99	2.3	Pass
C	50.00 — 54.99	2.0	Pass
C–	45.00 — 49.99	1.7	Fail
D+	40.00 — 44.99	1.3	Fail
D	35.00 — 39.99	1.0	Fail
F	00.00 — 34.99	0.0	Fail

*As extracted from Universiti Malaya (Bachelor's Degree) Rules & Regulations 2019 in Student Portal (MYUM Portal).

10. LIBRARY

With the growing interest in information, knowledge and scholarly activities, the UM library has changed their name to Digital Scholarship & Information Commons (DSIC). DSIC was established in 1959 and has a total collection of more than a million up to date titles. DSIC consists of a Central Library which provides library facilities for the whole campus. In addition to a network of branches and special libraries to meet the specific needs of some faculties. The library is headed by the Chief Librarian, with a complement of professional librarians, support and technical staff.

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 senior librarian and full-time staff members which covers a floor space of about 835 sq. metres with seating capacity for 133 students.

The Library's core function is to support the learning, teaching and research needs of undergraduate and postgraduate students, and the academic staff and researchers of the Faculty of Built Environment (FBE). It is also open to other registered users of the Universiti Malaya Library network, subject to some limitations in borrowings.

The library collections give priority on the teaching and learning of FBE programmes comprising 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, handbooks, journal, CD-ROM and etc.
- **Dissertations, Theses and Academic Works**
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 home 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-computerised system allows online renewal by the individual by each patron; and also reservation of books when materials on loan to other user.
- **Discussion Area (Ruang Bicara)**
This Discussion Area is located beside the library office and accommodates 16 seats. This area is spacious and suitable for any discussion and meeting. It is open to the public whereby users need to make a reservation at the counter. Projectors are also provided for teaching and learning facilities.
- **Books Donation Corner (by Faculty Members)**
This corner was initiated by faculty members to donate books as a library collection.
- **Inter-Library Loan and Document Delivery 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 Seeking, Writing and Academic Publications Course (GBX0009)**
The library conducts a course under Student Holistic Empowerment (SHE) entitled Information Seeking, Writing and Academic Publications Course (GBX0009) to equip students with the skills on information retrieval, writing 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 on a regular basis to familiarise 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	8.00 am – 5.00 pm
Closed on Saturday, Sunday and Public Holidays.	

11. OTHER FACILITIES

- **Studios**
Studios are located at Levels 4 to 7 and can be accessed from 8.00 am to 6.00 pm (weekdays). Students are reminded to keep the studios clean and observe proper code of conduct at all times.
- **Photocopying and Printing Services**
Photocopying and printing services are provided in the Printing Room, Level 6 during normal working hours.
- **Student Lounge**
The Student Lounge is located at Level 3, Mercu Alam Bina to give students space for study and relaxation between classes.
- **Surau/Musolla (Praying Room)**
Male and female Musollas are located on the second floor of Mercu Alam Bina.
- **WIFI**
Access is available within the building with a number of access points.
- **Computer and Virtual Reality Laboratories**
The computer laboratory is a facility for all students of the Faculty. The 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. The Virtual Reality Lab is located within the Computer Lab and requires booking in advance. The labs are open during normal working hours.
- **Woodworking and Metalworking Workshop**
Woodworking and Metalworking Workshop is available for students to make architecture models and construct small-scale products. The workshop, equipped with hand and power tools for model-making with wood, plastics and metal, is open by request during normal working hours for use by all students of the faculty. Some equipment is available for loan outside operating hours. One full-time technician supervises the workshop activities and provides hands-on training and assistance to students.
- **Specialised Laboratories**
There are three specialised laboratories within the Faculty buildings that support the lecturers and students in teaching and research activities. These are Environmental Physics Lab, Building Lab and Digital Fabrication Lab. These three labs provide advanced training and practical applications with the use of state-of-the-art machines and equipment, under the supervision of experienced academic and technical staff. These labs are open by request during normal working hours. Faculty staff supervises the workshop activities and provides hands-on training and assistance to students.
- **Measuring and Surveying Equipments**
Measuring and Surveying equipment such as theodolite, QCLASSIC inspection tools and PPE equipment are available at Level 6. The equipment is available for borrowing upon request during normal working hours.
- **Cafe**
The faculty's café is located at level 3 and is open during office hours on weekdays.

12. OTHER MATTERS

Disciplinary Matters

Dress code for students:

These rules are made in accordance with Rule 26, the University of Malaya (Discipline of Students) Rules 1999. The rules aim to provide guidelines on the appropriate dress code and conduct to be observed by all students of the Universiti Malaya.

- (1) Every student is required **TO DISPLAY THEIR MATRIC CARD** when attending or when they present in the vicinity of the University's Administration Offices including lecture halls, examination halls, seminar rooms, libraries and in any formal ceremony;

- (2) Each student is required to abide by the rules indicated at specific venues such as the library, laboratory, sports arena, prayer room, dining hall, at formal university function and so forth;
- (3) Wear neat and decent attire, for instance: shirt, T-shirts, long pants for male students and baju kurung, kebaya labuh or any ethnic costumes or decent clothing approved for Muslim students; and
- (4) Shoes.

Enforcement:

All officers of the University including administrative, academic, security and library staff are empowered to issue warnings and to bar any student who does not follow the rules.

Excerpt

The following excerpt is taken from the Student Handbook, available from the Student Affairs & Alumni Department. Ensure that personal appearance is at its best when attending/being in the University Administration Office, including Lecture Halls, Seminar Rooms, the Library and attending official functions.

Students must follow the Dress Etiquettes as stated below:

- (1) Sleeveless T-Shirts
- (2) T-Shirts with pictures or writings that are conflicting with the constitutional beliefs of Malaysia.
- (3) Short pants
- (4) Hair exceeding shoulder length (male students only)
- (5) Provocative and indecent attire.

Students who do not abide by these restrictions can be disciplined as stated under the UM Methods (Student Behaviour) 1999. All University officers, including administration, academic, safety and library staff are responsible for reporting any breach of these rules to the Student Affairs Department (HEP), Universiti Malaya. Report forms are available from the Student Affairs Department.

PROHIBITED:



Berseluar Jeans Bercompang-camping
Tattered/Ripped Jeans



Berseluar Ketat
Tight Pants



Berseluar Pendek
Shorts



Baju T Bergambar Yang Bertentangan Tatasusila
T-Shirt with Derogatory Picture/ Words



Tanpa Lengan
Sleeveless



Baju Jarang dan Ketat
Tight and See-Through Clothes



Mendedahkan Bahagian Badan
Body-Revealing Clothes



Skirt Pendek menampakkan Lutut
Skirt that shows the Knee



Berselipar
Flip-Flops



Rambut Yang Tidak Kemas
Unruly Hair



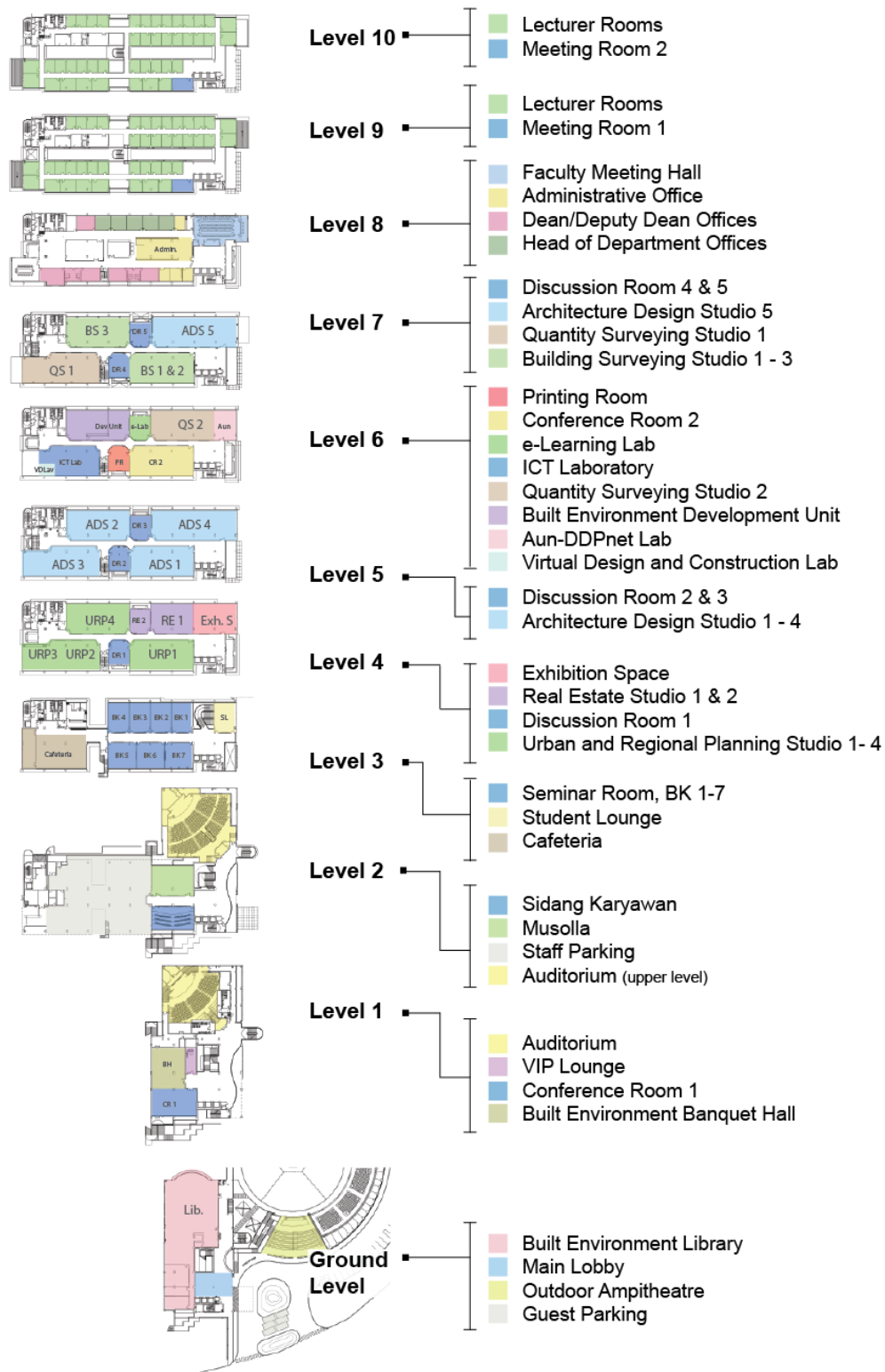
Aksesori Muka
Face Accessories



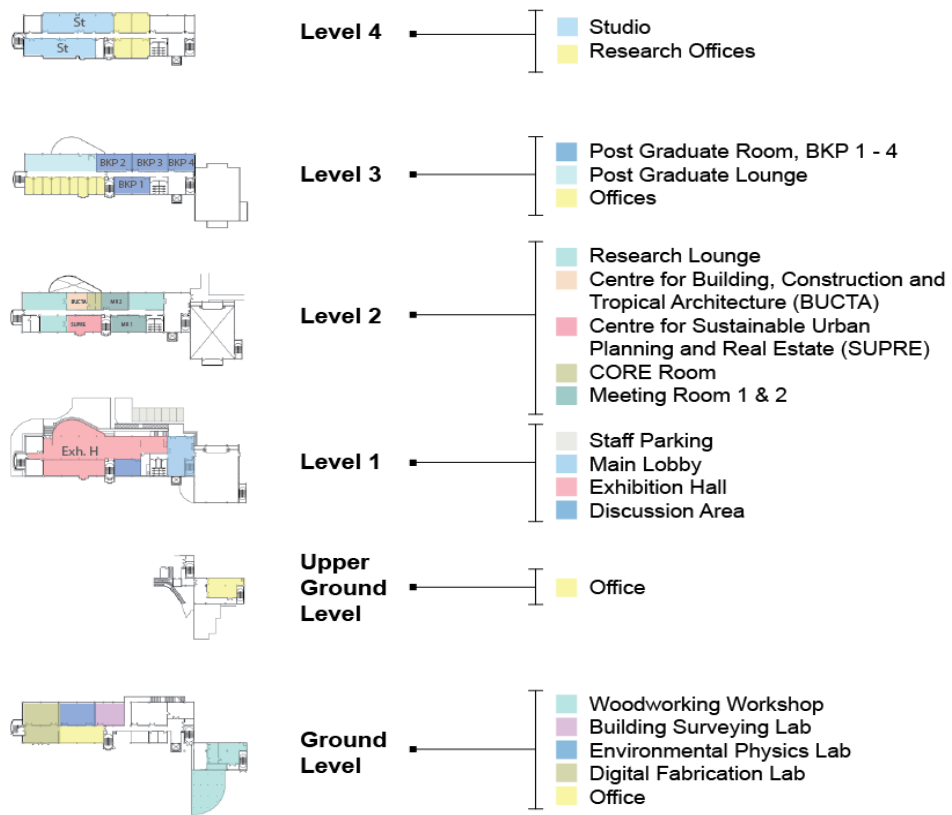
Berambut Warna Fesyen Ganjil
Brightly Coloured and Odd Hairstyles

Refer to <https://hep.um.edu.my/URUSAN%20TATATERTIB/dress-code.jpg>

13. FACULTY LAYOUT – Mercu Alam Bina



Blok Ukur



ARCHITECTURE

ARCHITECTURE

INTRODUCTION

The Architecture Department was first initiated as a programme under the Faculty of Engineering with 26 students enrolled in the semi-professional Bachelor of Science in Architecture course in May 1995. The Bachelor of Architecture programme, a professional course which was introduced in 1998 and in 2013, the programme was upgraded 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 of Architecture 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 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 (M.Arch) programme, graduates may venture into other related fields. For example, the BSc in Architecture qualification will enable graduates to work as architectural assistants, contractors, or developers in the private sector, as school teachers, 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 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 in 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.

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:

- PL01** Command adequate knowledge in design, technology, culture, management, practice and law to help in the formation of qualitative 3-dimensional spatial configurations.
- PL02** Use practical skills in creating qualitative 3-dimensional spatial configurations which are planned well and satisfy user needs and local regulations.
- PL03** Demonstrate social skills and responsibility towards the society and the environment in consideration of the needs and wants related to the design process.
- PL04** Practice ethical responsibility, professionalism and integrity in designing qualitative 3-dimensional configurations while considering architectural professional codes and standards.
- PL05** 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.
- PL06** Utilise 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.
- PL07** Utilise ICT management skills and practise lifelong learning concepts by referring to varied sources of materials to achieve in-depth knowledge as part of the design process.
- PL08** Apply management and entrepreneurial skills in the context of professional architectural practice within the framework of the construction industry and understand business operation methods.

ACADEMIC STAFF

HEAD



Ar. Dr. Helena Aman Hashim

PhD (Conservation Studies), Universiti Malaya
B.Arch, University of Miami, Florida, USA
LAM Professional Architect
Tel: 03-7967 5373 (Head of Department's Office)
Tel: 03-7967 6839
E-mail: helena@um.edu.my

PROFESSOR



Professor Dr. Yahaya Ahmad, D.J.N (PP)

PhD (Conservation Management), University of Liverpool, UK
MA (Architecture), M.Const. Mgmt.,
BA Washington University-St. Louis, Missouri, USA
Registered Conservator, MRISM
Tel: 03-7967 7049
E-mail: yahaya@um.edu.my

ASSOCIATE PROFESSORS



Associate Professor Dr. Hazreena Hussein

PhD (Landscape Architecture), Edinburgh College of Art, UK
M.A (Landscape Research), Manchester Metropolitan University, UK
PG Dipl. (Landscape Architecture), University of Sheffield, UK
B.A (Hons) Landscape Design, Manchester Metropolitan University, UK
Dipl. Seni (Rupabumi), Institut Teknologi MARA
Tel: 03-7967 7674
E-mail: reenalambina@um.edu.my



Associate Professor Ts. Dr. Nazli Che Din

PhD (Engineering), Oita University, Oita, Japan
M.Eng. (Architecture), Oita University, Oita, Japan
B.Eng (Architecture), Oita University, Oita, Japan
Tel: 03-7967 5372
E-mail: nazlichedin@um.edu.my



Associate Professor Dr. Payam Shafigh

PhD (Structural Engineering & Materials), Universiti Malaya
M.Sc (Structural Engineering), University of Mazandaran, Iran
B.Sc (Civil Engineering), University of Mazandaran, Iran
Tel: 03-7967 2464
e-mail: pshafigh@um.edu.my



Associate Professor (Industry) Ar. Sarly Adre Sarkum

B.A. Arch Hons, Liverpool University, UK
B.Arch Hons, Universiti Sains Malaysia
LAM Professional Architect
Tel: 03-7967 6872
E-mail: sarly@um.edu.my



Associate Professor (Industry) Ar. Zuraina Leily Awalludin

B.Arch, University of Newcastle, Australia
Dipl. (Architecture), Universiti Teknologi Malaysia
LAM Professional Architect
APEC Architect
ASEAN Architect
ACAM Member
Conservator (JWN)
Tel: 03-7967 6825
E-mail: zurainaleily@um.edu.my



Associate Professor (Industry) Ar. Gary Wong Wai Choong

B.Arch (Hon), Kansas State University, Kansas, USA
LAM Professional Architect
Tel: 03 7967 5392
E-mail: garywong@um.edu.my

SENIOR LECTURERS



Dr. Norafida Abd. Ghafar

PhD (Sustainable Architecture), University of Nottingham, UK
M.A (Urban Design), Pg.Dipl. (Architecture),
Pg.Dipl. (Urban Design), Oxford Brookes University, UK
Dipl. (Architecture), Institut Teknologi MARA
Tel: 03 7967 5392
E-mail: norafida@um.edu.my



Ati Rosemary Mohd Ariffin

MA (Urban Design), Pg.Dip (Architecture),
Pg.Dipl. (Urban Design), Oxford Brookes University, UK.
Dipl. (Architecture), Institut Teknologi MARA, Shah Alam
Tel: 03-7967 5393
E-mail: aa_alambina@um.edu.my



Ar. Aniza Abdul Aziz

B.Arch, Louisiana State University, Louisiana, USA
LAM Professional Architect
Tel: 03-7967 4586
E-mail: anizaziz@um.edu.my



Dr. Hazrina Haja Bava Mohidin
PhD (Architecture) Universiti Teknologi Malaysia
B.Arch, Universiti Teknologi Malaysia
Tel: 03-7967 2463
E-mail: hazrinahaja@um.edu.my



Dr. Mastura Adam
PhD (Urban Design), University of Salford, UK
MA (Urban Design), PG Dipl. (Architecture),
Oxford Brookes University, UK.
Dipl. (Architecture), Institut Teknologi MARA
Tel: 03-7967 5331
E-mail: mastura@um.edu.my



Dr. Muhammad Azzam Ismail
PhD (Built Environment), University of New South Wales, Australia
B.Arch (Hons), Universiti Malaya
B.Arch, University of Glasgow, Scotland
LAM Professional Architect
RIBA Part I & II
Tel: 03-7967 7613
E-mail: ma.ismail@um.edu.my



Dr. Asrul Mahjuddin Ressang Aminuddin
PhD (Architecture) University of Nottingham, UK.
M.Sc (Construction Management), Institut Teknologi MARA
Pg.Dipl. (Architecture), Polytechnic of Central London, UK
RIBA Part I
Dipl. (Architecture), Universiti Teknologi Malaysia
Tel: 03-7967 2454
E-mail: asrilmahjuddin@um.edu.my



Ar. Dr. Mohd Firrdhaus Mohd Sahabuddin
PhD (Sustainable Architecture) University of Strathclyde, Scotland
M.Sc (Advanced Sustainable Design) University of Edinburgh, Scotland
B.Arch (Hons) Universiti Teknologi Malaysia
Dip.Arch Universiti Teknologi Malaysia
LAM Professional Architect
Tel : 03-7967 2459
E-mail : firrdhaus@um.edu.my



Dr. Linda Shafarina Hassan
PhD (Architecture) Universiti Malaya
M.Sc (Heritage and Conservation Management), Universiti Teknologi MARA
B.Arch, Universiti Sains Malaysia
Tel : 03-7967 7957
E-mail: linda.s@um.edu.my



Dr. Liyana Hasnan

PhD (Architecture), Universiti Putra Malaysia
M.Sc Critical, Curatorial, and Conceptual Practices in Architecture (MScCCCP),
Columbia University, New York
B.Arch & B.Sc. (Architecture), Universiti Teknologi MARA
LAM member
Tel : 03-7967 7608
E-mail: liyana_h@um.edu.my



Dr. Nurdiyana Zainal Abidin

PhD (Heritage & Conservation Studies), Universiti Teknologi Malaysia
M.Arch, Universiti Teknologi Malaysia
B.Arch, Universiti Islam Antarabangsa Malaysia
B.Sc. Arch, Universiti Islam Antarabangsa Malaysia
PAM, Graduate Ts.
Tel : 03-7967 7608
E-mail: nurdiyana@um.edu.my

LECTURER



Asrul Sani Abdul Razak

M.Sc (Design & Digital Media) University of Edinburgh, Scotland
B.Arch, University of Edinburgh, Scotland
M.Arts (Hons) University of Edinburgh, Scotland
LAM/RIBA Part I & II
Tel: 03-7967 5217
E-mail: asrulsani@um.edu.my

EXTERNAL ASSESSORS



Ar. David Teh

Director of Pakatan Reka Arkitek
B. Arch (Melb), FPAM, FRAIA, RIBA, Intl Assoc AIAMIID



Professor Heng Chye Kiang

Provost's Chair Professor, Department of Architecture, National University of Singapore
PhD University of California Berkeley, USA
Postgraduate Certificate, Tsinghua University, China
CES (Amenagement Urbain), France
Diplôme d'Architecte, France
Tel : (65) 98169890
Faks : (65) 6779-3078
Email : akhck@nus.edu.sg

PROGRAMME STRUCTURE – BACHELOR OF SCIENCE IN ARCHITECTURE

CATEGORY	NO	CODE	SUBJECT	YEAR I			YEAR II			YEAR III			TOTAL CREDIT	PRE-REQUISITE
				S1	S2	S3	S1	S2	S3	S1	S2	S3		
DESIGN	1	BIA1020	Architectural Design Studio I	10								60 (50%)		
	2	BIA1025	Architectural Design Studio II		10									BIA1020
	3	BIA2020	Architectural Design Studio III				10							BIA1025
	4	BIA2025	Architectural Design Studio IV					10						BIA2020
	5	BIA3020	Architectural Design Studio V							10				BIA2025
	6	BIA3025	Architectural Design Studio VI								10			BIA3020
CULTURE AND CONTEXT	7	BIA1022	History of Asian Architecture	2								10 (8.33%)		
	8	BIA1027	History of World Architecture		2									
	9	BIA3021	Culture and Context							3				
TECHNOLOGY AND ENVIRONMENT	10	BIA1021	Materials and Construction I	3								19 (15.88%)		
	11	BIA1026	Environmental Physics		3									
	12	BIA2021	Materials and Construction II				3							BIA1021
	13	BIA2022	Building Structure				2							
	14	BIA2023	Digital Architecture				3							
	15	BIA2026	Building Services					2						
RESEARCH, MANAGEMENT AND PRACTICE	16	BIA3022	Architectural Academic Report							3		13 (10.83%)		
	17	BIA3026	Professional Studies								3			
	18	BIA3027	Working Drawing								3			
	19	BIA3028	Industrial Training										4	
PROGRAM ELECTIVES COURSE	20	BIA2027 / BIA2028	* Measured Drawing / Landscape Architecture						3			6		
	21	BIA2029 / BIA2030	** Architectural Lighting and Acoustics / Digital Fabrication					3						
UNIVERSITY COURSES	22	GLTxxxx	English I	2								18 (15%)		
	23	GLTxxxx	English II		2									
	24	GIG1012/ ***GLT1017	Philosophy and Current Issues /***Basic Malay Language					2						
	25	GIG1013	Appreciation of Ethics and Civilisations					2						

CATEGORY	NO	CODE	SUBJECT	YEAR I			YEAR II			YEAR III			TOTAL CREDIT	PRE-REQUISITE
				S1	S2	S3	S1	S2	S3	S1	S2	S3		
	26	GIG1003	Basic Entrepreneurship Enculturation							2				
	27		Co-Curriculum		2									
	28		Student Holistic Empowerment (S.H. E.) I	2										
	29		Student Holistic Empowerment (S.H. E.) II							2				
	30		Student Holistic Empowerment (S.H. E.) III								2			
CREDITS				19	19	0	18	19	3	20	18	4	120	
PROGRAM COURSES				5	5	0	4	5	1	5	4	1	30	
UNIVERSITY COURSES				2	2	0	0	2	0	2	1	0	9	
CORE SUBJECTS				3	3	0	4	2	0	3	3	1	19	
DEPARTMENT ELECTIVES				0	0	0	0	1	1	0	0	0	2	
TOTAL SUBJECT BREAKDOWN														

* Elective subject (Culture and Context)

** Elective subject (Technology and Environment)

*** Courses offered to non-Malaysian students

PROGRAMME STRUCTURE – BACHELOR OF SCIENCE IN ARCHITECTURE

COMPONENTS	YEAR 1 (Bachelor of Science In Architecture)						TOTAL CREDIT	
	SEMESTER 1			SEMESTER 2				
	COURSE CODE	COURSE TITLE	CREDIT	COURSE CODE	COURSE TITLE	CREDIT		
University Courses	GLTxxxx	English I	2	GLTxxxx	English II	2	6	
				GXXxxxx	Co-Curriculum	2		
Program Core Courses	BIA1020	Architectural Design Studio I	10	BIA1025	Architectural Design Studio II	10	30	
	BIA1021	Materials and Construction I	3	BIA1026	Environmental Physics	3		
	BIA1022	History of Asian Architecture	2	BIA1027	History of World Architecture	2		
University Elective Courses		Student Holistic Empowerment (S.H. E.) I	2					
Total Credit			19	Total Credit			19	38

COMPONENTS	YEAR 2 (Bachelor of Science In Architecture)									TOTAL CREDIT		
	SEMESTER 1			SEMESTER 2			SPECIAL SEMESTER					
	COURSE CODE	COURSE TITLE	CREDIT	COURSE CODE	COURSE TITLE	CREDIT	COURSE CODE	COURSE TITLE	CREDIT			
University Courses				GIG1012/ GLT1017**	Philosophy and Current Issue/ Basic Malay Language**	2				4		
				GIG1013	Appreciation of Ethics and Civilization	2						
Program Core Courses	BIA2020	Architectural Design Studio III	10	BIA2025	Architectural Design Studio IV	10				30		
	BIA2021	Materials and Construction II	3	BIA2026	Building Services	2						
	BIA2022	Building Structure	2									
	BIA2023	Digital Architecture	3									
University Elective Courses				BIA2029*/ BIA2030	Architectural Lighting and Acoustics* / Digital Fabrication	3	BIA2027 / BIA2028	Measured Drawing / Landscape Architecture	3	6		
Total Credit			18	Total Credit			19	Total Credit			3	40

* Elective subject (Technology and Environment)

** Courses offered to non-Malaysian students

COMPONENTS	YEAR 3 (Bachelor of Science In Architecture)									TOTAL CREDIT	
	SEMESTER 1			SEMESTER 2			SPECIAL SEMESTER				
	COURSE CODE	COURSE TITLE	CREDIT	COURSE CODE	COURSE TITLE	CREDIT	COURSE CODE	COURSE TITLE	CREDIT		
University Courses	GIG1003	Basic Entrepreneurship Enculturation	2							2	
Program Core Courses	BIA3020	Architectural Design Studio V	10	BIA3025	Architectural Design Studio VI	10				32	
	BIA3021	Culture and Context	3	BIA3026	Professional Studies	3					
	BIA3022	Architectural Academic Report	3	BIA3027	Working Drawing	3					
University Elective Courses		Student Holistic Empowerment (S.H. E.) II	2		Student Holistic Empowerment (S.H. E.) III	2	BIA3028	Industrial Training	4	8	
Total Credit			20	Total Credit			18	Total Credit		4	42

OVERALL TOTAL CREDIT: 120

PROGRAMME CORE COURSES

BIA1020
10 credits

ARCHITECTURAL DESIGN STUDIO I

Synopsis of Course Contents

The course is an introduction to basic design, emphasising 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

At the end of the course, students are 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 ergonomics in architectural design;
7. Manipulate basic forms to create a composition of spaces; and
8. Propose a schematic design proposal of a small-scale design project of 'space for one or two users'.

Assessment

Continuous Assessment 100%

BIA1025
10 credits

ARCHITECTURAL DESIGN STUDIO II

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 are able to:

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; and
10. Apply knowledge learned in the design of a small-scale building typology on a selected site.

Assessment

Continuous Assessment 100%

BIA2020
10 credits

ARCHITECTURAL DESIGN STUDIO III

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 are able to:

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 processes.
7. Determine the elements, scheme, and concept of an architectural project.
8. Describe good building design practice with emphasis on 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%

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
- 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
- concepts – vernacular architecture, tropical architectural design, bio-climatic design, ecological and sustainable design

Learning Outcomes

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

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; and
9. Generate passive design solutions in a design scheme.

Assessment

Continuous Assessment 100%

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

1. At the end of the course, students are able to: 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 utilising 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; and
5. Perform the final design through verbal and multimedia presentation in front of internal and external juries.

Assessment

Continuous Assessment 100%

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 are able to:

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; and
6. Prepare a comprehensive design report including technical building requirements.

Assessment

Continuous Assessment 100%

BIA1021
3 credits

MATERIALS AND CONSTRUCTION I

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 are able to:

1. Identify basic construction materials such as timber, bamboo, masonry and reinforced concrete;
2. Determine the basic construction components and techniques involved in a 2-storey structure; and
3. Illustrate the principles of construction for timber, bamboo, masonry and reinforced concrete.

Assessment

Continuous Assessment	40%
Final Examination	60%

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:
 - East Asian Architecture
 - South Asian Architecture
 - Southeast Asian Architecture
 - Malaysian Architecture

The influences of Asian architecture towards Malaysian architecture.

Learning Outcomes

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

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

Assessment

Continuous Assessment	100%
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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 are able to:

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

Assessment

Continuous Assessment	40%
Final Examination	60%

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 are able to:

1. Identify the various architectural development in world architecture history according to historical timeline from prehistoric era to the postmodern era;
2. Summarise the architectural development in world architecture history throughout different eras;
3. Describe the various architectural historical developments focusing on various types of architectural styles; and

4. Compare the differences and similarities of architectural historical developments in world architecture and Malaysian architecture including their influences.

Assessment

Continuous Assessment 100%

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 are able to:

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; and
3. Justify the theoretical and practical aspects of construction through exposure to construction works on site.

Assessment

Continuous Assessment 40%
Final Examination 60%

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 are able to:

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

Assessment

Continuous Assessment 40%
Final Examination 60%

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 to information modelling techniques within digital, physical and/or virtual environments to present and interact with architectural design proposals.

Learning Outcomes

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

1. Identify use of 2D/3D CAD application 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; and
4. Appraise digital and virtual design processes.

Assessment

Continuous Assessment 100%

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

At the end of the course, students are 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; and
3. Determine the requirements of building services appropriate to building specifications, submission guidelines and by-law.

Assessment

Continuous Assessment	40%
Final Examination	60%

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 photos, 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

At the end of the course, students are 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; and
4. Produce report for archival and/or publication in newspaper or magazine or book.

Assessment

Continuous Assessment	100%
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BIA3022
3 credits

ARCHITECTURAL ACADEMIC REPORT

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 practise their skills to empower the community through video recording, taking photos, 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

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

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

Assessment

Continuous Assessment 100%

BIA3026
3 credits

PROFESSIONAL STUDIES

Synopsis of Course Contents

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

Learning Outcomes

At the end of the course, students are 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 organising building construction projects creatively, efficiently, and professionally; and
4. Appraise project management principles.

Assessment

Continuous Assessment 100%

BIA3027
3 credits

WORKING DRAWING

Synopsis of Course Contents

This course introduces the technical definition of working drawings in architectural practice. The course discusses aspects of drawing management using the 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 to design communication, coordinated drawings, and building construction.

Learning Outcomes

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

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

Assessment

Continuous Assessment 100%

BIA3028
4 credits

INDUSTRIAL TRAINING

Synopsis of Course Contents

This course introduces students 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 proposed 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

At the end of the course, students are 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; and
3. Record the work experiences in a timely manner to produce an industrial training report.

Assessment

Continuous Assessment 100%

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

At the end of the course, students are 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; and
3. Apply skills to draw architectural measured drawings and write reports to produce related documents.

Assessment

Continuous Assessment 100%

BIA2028
3 credits

LANDSCAPE ARCHITECTURE

Synopsis of Course Contents

Students will be exposed through a 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

At the end of the course, students are 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; and
3. Illustrate relevant issues and recommendations of landscape elements.

Assessment

Continuous Assessment 100%

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

At the end of the course, students are 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%

BIA2030
3 credits

DIGITAL FABRICATION

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

At the end of the course, students are 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'; and
3. Organize an event (design commissioned, exhibition or competition entry and/or website, etc.) to showcase the product(s) studied.

Assessment

Continuous Assessment	100%
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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 organisation.

Programme Structure

Bachelor of Building Surveying

(7 semesters and 1 Special Semester)

The Bachelor of Building Surveying programme consists of 8 semesters (including 1 special semester) with a total of 125 credits. This programme comprises two major components namely, university (20 credits) and faculty courses (105 credits) which constitute 16% and 84% 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.

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:

- PL01** Apply knowledge, skills and appropriate characters of the Building Surveying and Property Management procedures.
- PL02** Coordinate support services in the area of Building Surveying and Property Management.
- PL03** Demonstrate effective communication within the built environment community and teamwork.
- PL04** Propose problem-solving solutions in Building Surveying and Property Management using the latest technological approach.
- PL05** Plan and diagnose building problems.
- PL06** Select and apply appropriate and relevant techniques, resources and equipment of Building Surveying and Property Management.
- PL07** Demonstrate awareness and responsibility towards social, health, safety, ethics and legal issues.
- PL08** Foster awareness towards entrepreneurship and sustainable development.
- PL09** Encourage readiness for career development and lifelong learning.

ACADEMIC STAFF

HEAD



Sr Dr. Raha Sulaiman

PhD (Building Services), Universiti Malaya
M.Sc (Bldg Services Eng. Mgmt), Heriot-Watt University, UK
B (Hons with Distinction) (Bldg. Surveying), Universiti Malaya
Dipl. (Architecture), Universiti Teknologi MARA
MRISM
Tel: 03-7967 6836
E-mail: rahasulaiman@um.edu.my

PROFESSORS



Professor Sr Ts. Dr. Azlan Shah Ali

PhD Built Environment (Building Refurbishment), Universiti Teknologi MARA
M.Sc (Real Estate & Property Mgmt), University of Salford, UK
M.Sc (Integ.Const.Proj.Mgmt), Universiti Teknologi MARA
B (Hons) (Bldg Surveying), Institut Teknologi MARA
Prof. Dip. (Property Mgmt Valuation Surveying), RISM
Dipl. (Estate Mgmt), Institut Teknologi MARA
Chartered Surveyor, P.Tech. (Building & Construction), Reg. Bldg. Surveyor, Reg. Property Mgr.
FRISM, FRICS, MSET
Tel: 03-7967 4494
E-mail: asafab@um.edu.my



Professor Sr Ts. Dr. Syahrul Nizam Kamaruzzaman

PhD (Building), University of Manchester, UK
M.Sc (Bldg.Tech), Universiti Sains Malaysia
B.Sc (Hons) (HBP), Universiti Sains Malaysia
Cert. Building Services Eng. (POLIMAS)
Reg. Build. Surveyor, P. Tech. (Build. & Cons.)
FRISM, MSET, MIACSIT
Tel: 03-7967 6833
E-mail: syahrulnizam@um.edu.my

ASSOCIATE PROFESSORS



Associate Professor Sr Dr. Norhayati Mahyuddin

PhD (Indoor Air Quality), University of Reading, UK
M.Sc (Integ.Const.Proj.Mgmt), Universiti Teknologi MARA
B.Sc (Hons) (HBP-Architecture), Universiti Sains Malaysia
Reg. Build. Surveyor
MRISM
Tel: 03-7967 6837/6813
E-mail: hayati@um.edu.my



Associate Professor Sr Dr. Au Yong Cheong Peng

PhD (Facilities Management), Universiti Malaya
B (Hons) (Bldg. Surveying), Universiti Malaya
Graduate Member RISM
Tel: 03-7967 6822
E-mail: auyongcp@um.edu.my

SENIOR LECTURERS



Sr Dr. Zuraini Md. Ali

PhD (Architectural Conservation), University of Sheffield, UK
MSc [Construction Management (Risk) with Distinction], Glasgow Caledonian University, UK
BSc (Architectural Studies), University of Illinois at Urbana-Champaign, USA
Registered Conservator, MRISM, MICOMOS
Tel: 03-7967 4588
E-mail: zuraini_mdali@um.edu.my



Sr Dr. Nor Haniza Ishak

PhD (Architecture), Universiti Kebangsaan Malaysia
M.Sc (Integ.Const.Proj.Mgmt), Universiti Teknologi MARA
B (Hons) (Bldg Surveying), Universiti Teknologi MARA
Dipl. (Architecture), Universiti Teknologi MARA
MRISM, MSET
Tel: 03-7967 6858
E-mail: niza_alambina@um.edu.my



Sr Dr. Rodiah Zawawi

PhD (Construction), Heriot-Watt University, UK
M.Civ.Eng (Env.Eng), Universiti Teknologi Malaysia
B.Civ.Eng (Hons), Universiti Teknologi Malaysia
MRISM
Tel: 03-7967 4450
E-mail: rodiah31@um.edu.my



Sr Ts. Dr. Farid Wajdi Akashah

PhD (Fire Risk Assessment), Ulster University, UK
B (Hons) (Bldg. Surveying), Universiti Malaya
Reg. Bldg. Surveyor, P.Tech. (Building & Construction)
MRISM
Tel: 03-7967 6874
E-mail: faridakashah@um.edu.my



Sr Dr. Brennan Brit Anak Kayan

PhD (Construction Management), Heriot-Watt University, UK
M.Sc (Bldg), Universiti Malaya
B.Sc (Hons) (Bldg. Surveying), Universiti Malaya
Registered Conservator, MRISM
Tel : 03-7967 6885
E-mail: brit284@um.edu.my



Dr. Mohamad Rizal Baharum

PhD (Facilities Mgmt), Liverpool John Moores University, UK
M.Sc (Facilities Mgmt), Herriot-Watt University, UK
B (Hons) (Bldg. Surveying), Universiti Malaya
Dipl (QS), Universiti Teknologi Malaysia
IFMA (Professional Member)
Tel : 03-7967 7608
E-mail: mrizal@um.edu.my



Dr. Zahiruddin Fitri Abu Hassan

PhD (Civil Engineering), University of Dundee, UK
M.Sc (Building Surveying), University of the West of England, UK
B (Hons) (Bldg. Surveying), Universiti Malaya
Graduate Member RISM
Tel: 03-7967 7601
E-mail: zahiruddin@um.edu.my



Dr. Nik Elyna Myeda Nik Mat

PhD (Facilities Management), University College London, UK
M.Sc (Building), Universiti Malaya
B (Hons) (Bldg. Surveying), Universiti Malaya
Graduate Member RISM
Tel: 03-7967 7022/2455
E-mail: elyna@um.edu.my



Dr. Noor Suzaini Mohamed Zaid

PhD (Planning and Development), University of New South Wales, AUS
M.Sc (Building and Urban Design Development), University College London, UK
B (Hons) (Bldg. Surveying), Universiti Malaya
Graduate Member RISM
Tel: 03-7967 7603
E-mail: suzaini_zaid@um.edu.my



Dr. Shirley Chua Jin Lin

PhD (Asset & Facilities Management), Universiti Malaya
B (Hons) (Bldg. Surveying), Universiti Malaya
Graduate Member RISM
Tel: 03-7967 7952
E-mail: shirleychua88@um.edu.my



Dr. Nur Farhana Azmi

PhD (Building Control & Performance), Universiti Malaya
B (Hons) (Bldg. Surveying), Universiti Malaya
Graduate Member RISM
Tel: 03-7967 5391
E-mail: farhanazmi@um.edu.my

LECTURER



Imaduddin Abdul Halim

M.Sc (Bldg.Tech), Universiti Sains Malaysia
B.Sc (Hons) (Bldg.Tech), Universit Sains Malaysia
Tel: 03-7967 2458
E-mail: imaduddin@um.edu.my

EXTERNAL ASSESSORS



Professor Alison Cotgrave

Professor of Built Environment Education
PhD (Sustainability Literacy), Liverpool John Moores University, UK
MEd (Training & Development), University of Manchester, UK
PGCertEd, University of Manchester, UK
B.Sc (Hons)(Building), Liverpool Polytechnic, UK
Member of the Royal Institution of Chartered Surveyor
Fellow of the Chartered Institute of Building
Chartered Environmentalist
E-mail: a.j.cotgrave@ljmu.ac.uk



Sr Lim Swee Meng

M.Sc (Building), Universiti Malaya
B.Sc (Hons)(Bldg. Surveying), Universiti Malaya
Chartered Building Surveyor, RICS
MRISM
E-mail: sweemeng1983@yahoo.com

PROGRAMME STRUCTURE: BACHELOR OF BUILDING SURVEYING

CATEGORY	NO	CODE	SUBJECT	YEAR I		YEAR II			YEAR III		YEAR IV		TOTAL CREDIT	PRE-REQUISITE	
				S1	S2	S1	S2	S3	S1	S2	S1	S2			
UNIVERSITY COURSES	1		Co-Curriculum				2						20		
	2		Student Holistic Empowerment (S.H. E.) I			2									
	3		Student Holistic Empowerment (S.H. E.) II				2								
	4		Student Holistic Empowerment (S.H. E.) III				2								
	5		Student Holistic Empowerment (S.H. E.) IV						2						
	6	GIG1012/ *GKT1017	Philosophy and Current Issue / *Basic Malay Language	2											
	7	GLTxxxx	English I	2											
	8	GIG1013	Appreciation of Ethics and Civilization		2										
	9	GIG1003	Basic of Entrepreneurship Culture		2										
	10	GLTxxxx	English II		2										
PROGRAM CORE COURSES	11	BIB1012	Legal Studies and Built Environment Laws	3									99		
	12	BIB1013	Construction Technology – Low Rise Building	3											
	13	BIB1014	Building Services	3											
	14	BIB1015	Building Services & Environment	4											
	15	BIB1016	Construction Technology – High Rise Building		3										
	16	BIB1017	Integrated Project I – Design Communication		4										
	17	BIB2013	Construction Technology – Complex Construction			3									
	18	BIB2014	Building Pathology			3									
	19	BIB2015	Property Management and Maintenance			4									
	20	BIB2016	Integrated Project II – Building Control & Development			4									
	21	BIB2017	Structural Principle			3									
	22	BIB2018	Building Dilapidation Survey				3							BIB2014	
	23	BIB2019	Integrated Project III – Building Services Audit				4								
	24	BIB2020	Accounting & Financial Management				3								
	25	BIB2021	Risk & Construction Safety				3								

CATEGORY	NO	CODE	SUBJECT	YEAR I		YEAR II			YEAR III		YEAR IV		TOTAL CREDIT	PRE-REQUISITE	
				S1	S2	S1	S2	S3	S1	S2	S1	S2			
	26	BIB2022	Integrated Project IV – Building Performance & Simulation					4							
	27	BIB2023	Procurement, Contract and Specification					3							
	28	BIB3011	Fundamental of Property Valuation & Taxation						3						
	29	BIB3012	Facility Management Services						3						
	30	BIB3013	Building Conservation						3						
	31	BIB3014	Research Methodology						3						
	32	BIB3015	Integrated Project V – Project Management						4						
	33	BIB3016	Property Economics & Investment							3					
	34	BIB3017	Building Surveying Professional Practice							3					
	35	BIB3018	Construction Law							3					
	36	BIB3019	Building Certification							3					
	37	BIB3020	Academic Research							4					
	38	BIB4002	Industrial Training								10				
PROGRAM ELECTIVE COURSES	39	BIB1018**	Computer Aided Design		3**								6**		
	40	BIB1019**	Sustainable Built Environment		3**										
	41	BIB1020**	Land & Geomatics Surveying		3**										
TOTAL SUBJECT BREAKDOWN			CREDITS	17	19	19	19	7	18	16	10	0	125		
			SUBJECTS	6	7	6	7	2	6	5	1	0	40		

Note:

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

** Choose only two (2) Program Elective Courses.

PROGRAMME STRUCTURE: BACHELOR OF BUILDING SURVEYING

COMPONENTS	YEAR 1 (Bachelor of Building Surveying)						TOTAL CREDIT	
	SEMESTER 1			SEMESTER 2				
	COURSE CODE	COURSE TITLE	CREDIT	COURSE CODE	COURSE TITLE	CREDIT		
Compulsory University Courses	GIG1012/ GKT1017*	Philosophy and Current Issue/ Basic Malay Language*	2	GIG1013	Appreciation of Ethics and Civilization	2	10	
	GLTxxxx	English I	2	GIG1003	Basic Entrepreneurship Enculturation	2		
				GLTxxxx	English II	2		
Program Core Courses	BIB1012	Legal Studies and Built Environment Laws	3	BIB1016	Construction Technology – High Rise Building	3	20	
	BIB1013	Construction Technology – Low Rise Building	3	BIB1017	Integrated Project I – Design Communication	4		
	BIB1014	Building Services	3					
	BIB1015	Building Services & Environment	4					
Program Elective Courses				BIB1018**	Computer Aided Design	3**	6	
				BIB1019**	Sustainable Built Environment	3**		
				BIB1020**	Land & Geomatics Surveying	3**		
Total Credit			17	Total Credit			19	36

*Non-Malaysian

** Choose only two (2) Program Elective Courses.

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		Student Holistic Empowerment (S.H. E.) I	2	GXXxxxx	Co-Curriculum	2				8
					Student Holistic Empowerment (S.H. E.) II	2				
					Student Holistic Empowerment (S.H. E.) III	2				
Program Core Courses	BIB2013	Construction Technology – Complex Construction	3	BIB2018	Building Dilapidation Survey	3	BIB2022	Integrated Project IV – Building Performance & Simulation	4	45
	BIB2014	Building Pathology	3	BIB2019	Integrated Project III – Building Services Audit	4	BIB2023	Procurement, Contract and Specification	3	
	BIB2015	Property Management and Maintenance	4	BIB2020	Accounting & Financial Management	3				
	BIB2016	Integrated Project II – Building Control & Development	4	BIB2021	Risk & Construction Safety	3				
	BIB2017	Structural Principle	3							
Total Credit			19	Total Credit			19			7

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		Student Holistic Empowerment (S.H. E.) IV	2							2
Program Core Courses	BIB3011	Fundamental of Property Valuation & Taxation	3	BIB3016	Property Economics & Investment	3	BIB4002	Industrial Training	10	42
	BIB3012	Facility Management Services	3	BIB3017	Building Surveying Professional Practice	3				
	BIB3013	Building Conservation	3	BIB3018	Construction Law	3				
	BIB3014	Research Methodology	3	BIB3019	Building Certification	3				
	BIB3015	Integrated Project V – Project Management	4	BIB3020	Academic Research	4				
Total Credit			18	Total Credit			16		10	44

OVERALL TOTAL CREDIT: 125

PROGRAMME CORE COURSES

BIB1012
3 credits

LEGAL STUDIES & BUILT ENVIRONMENT LAWS

Synopsis of Course Contents

This course focuses on the Malaysian Legal System, Law of Tort, and Law of Contract. It also covers legislations for land development and building: National Land Code 1965; Local Government Act 1976; Town and Country Planning Act 1976; Housing Development (Control and Licensing) Act 1966; Environmental Quality Act 1974; Street, Drainage and Building Act 1974; and Strata Title Act 1985.

Learning Outcomes

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

1. Read the Malaysian Legal System, law of tort and contract;
2. Execute the principles and working of specific legislative provisions in built environment context; and
3. Apply the knowledge of law of tort, law of contract and built environment laws.

Assessment:

Continuous Assessment	40%
Final Examination	60%

BIB1013
3 credits

CONSTRUCTION TECHNOLOGY I

Synopsis of Course Contents

Introduction to construction industry, building construction principles, materials, methods and processes for erecting 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. Determine building materials and connection methods for erecting a two-storey building;
2. Reconstruct a building at appropriate model scale; and
3. Write a report on construction for timber, masonry and reinforced concrete buildings.

Assessment:

Continuous Assessment	60%
Final Examination	40%

BIB1014
3 credits

BUILDING SERVICES

Synopsis of Course Contents

This course introduces the need for building services in modern living, relevant regulations and guidelines; Uniform Building By-Laws (UBBL) requirements; design of rainwater collection and drainage systems, plumbing and integrated plumbing systems; water supply and distribution; underground drainage and disposal system, above ground drainage, sewerage systems and septic tanks; refuse disposal systems; electrical distribution, electrical wiring, telephone and data; vertical and horizontal transportation in buildings.

Learning Outcomes

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

1. Show various types of building service systems;
2. Discuss the design of installation and location of equipment in the service systems; and
3. Conform the requirements and limitations of the building services system.

Assessment:

Continuous Assessment	40%
Final Examination	60%

BIB1015
4 credits

BUILDING SERVICES & ENVIRONMENT

Synopsis of Course Contents

Introducing the concept of environmental physics in a sustainable development and human lifestyle influenced by lighting, ventilation and acoustic systems and how the concept is integrated in various types of mechanical and electrical systems in buildings such as air conditioning and mechanical ventilation systems, lighting and electrical systems and fire safety systems.

Learning Outcomes

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

1. Identify concepts of environmental physics in the design and performance of mechanical and electrical (M&E) services;
2. Elaborate various natural and mechanical and electrical (M&E) services within the built environment; and
3. Examine parameters of comfort being measured in buildings in terms of climate, ventilation, lighting and sound.

Assessment:

Continuous Assessment	60%
Final Examination	40%

BIB1016
3 credits

CONSTRUCTION TECHNOLOGY II

Synopsis of Course Contents

Introduction to construction industry, building construction principles, methods and processes for multi-storey building base on relevant regulation and standard; site preparation and machineries; piling, basement, waterproofing systems, building frames, metal and concrete composite building structures, cladding systems, roof system, elements, materials and finishes; fundamental of building alteration, demolition works and infrastructural work.

Learning Outcomes

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

1. Interpret the principles, design, materials and methods in multi-storey (medium rise) building construction;
2. Show preliminary construction activities and machineries through exposure to construction works on site; and
3. Show the suitability of construction methods for multi-storey building.

Assessment:

Continuous Assessment	60%
Final Examination	40%

BIB1017
4 credits

INTEGRATED PROJECT I – DESIGN COMMUNICATION

Synopsis of Course Contents

The course aims at developing students' capabilities of executing a broad range of architectural communication tasks and introduces fundamental graphic communication techniques. It involves studies on various drawing techniques like orthographic and free-hand drawings besides computer aided drawing to enable students to develop and present their design ideas in different mediums.

Learning Outcomes

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

1. Determine basic design principles of graphic communication;
2. Demonstrate existing building into technical drawings; and
3. Draw two and three-dimensional architectural drawings.

Assessment:

Continuous Assessment	100%
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BIB1018
3 credits

COMPUTER AIDED DESIGN

Synopsis of Course Contents

This course aims to introduce the types and components of Computer-Aided Design (CAD), the usage in designing and measuring buildings, the operating system and relevant image processing. It involves designing technical drawing using 2-D and 3-Dimension lectures and hands on sessions using appropriate CAD software and plotting design and drawings.

Learning Outcomes

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

1. Apply visual presentation and communication with Computer-Aided Design (CAD) software;
2. Complete technical construction drawing using CAD software; and
3. Draw two and three-dimensional architectural drawings using CAD software.

Assessment:

Continuous Assessment 100%

BIB1019
3 credits

SUSTAINABLE BUILT ENVIRONMENT

Synopsis of Course Contents

This course discusses key principles of sustainable development (environmental, social and economical) and analyses the complex relationship of the building industry and national economic growth. It also explores the holistic approach of sustainable development in the built environment for climate change mitigation and economic development.

Learning Outcomes

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

1. Interpret the principles of sustainable development;
2. Propose sustainable development principles in built environment to mitigate environmental risks; and
3. Formulate the holistic implementation of sustainable development principles in the built environment context.

Assessment:

Continuous Assessment 60%
Final Examination 40%

BIB1020
3 credits

LAND & GEOMATICS SURVEYING

Synopsis of Course Contents

Introduction to basic theory and the principles of land and building surveying. Introduction with hands-on fieldwork and equipment used in land surveying. Introduction to the concepts of handling and introduction to Geographic Information System (GIS) and its related software application.

Learning Outcomes

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

1. Explain the basic principles of method and procedure of land survey;
2. Adapt various survey equipment, referencing information, record and calculation to produce site dat; and
3. Execute the Geographic Information System (GIS) software in calculation and spatial analysis.

Assessment:

Continuous Assessment 100%

BIB2013
3 credits

CONSTRUCTION TECHNOLOGY III

Synopsis of Course Contents

Introduction to heavy substructure works and high-rise building construction system based on relevant regulation and standard: prefabricated building systems; pre-cast concrete; pre-stressed 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. Determine heavy substructure works and building construction system;
2. Show alternative construction materials and methods for highrise buildings; and
3. Adapt methods for complex constructions.

Assessment:

Continuous Assessment	60%
Final Examination	40%

BIB2014
3 credits

BUILDING PATHOLOGY

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. Determine various types of building materials, defects, materials behaviour and agents of deterioration;
2. Report building defects based on building inspection outcomes; and
3. Show building inspection outcomes and diagnose building defects.

Assessment:

Continuous Assessment	40%
Final Examination	60%

BIB2015
4 credits

PROPERTY MANAGEMENT & MAINTENANCE

Synopsis of Course Contents

This course covers the property management practices; various types of building maintenance strategies; maintenance planning and budgeting; life cycle cost application; execution of maintenance activities; recording and monitoring; and contracts management.

Learning Outcomes

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

1. Determine principle and practise of property management;
2. Show various types of maintenance and procedures for buildings; and
3. Arrange maintenance planning and economical maintenance budgeting, considering the life cycle costs.

Assessment:

Continuous Assessment	50%
Final Examination	50%

BIB2016
4 credits

INTEGRATED PROJECT II – BUILDING CONTROL & DEVELOPMENT

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. Identify 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. Show refurbishment according to relevant regulation and legislation; and
4. Conform design and legislative requirements for building plan approval.

Assessment:

Continuous Assessment 100%

BIB2017
3 credits

STRUCTURAL PRINCIPLE

Synopsis of Course Contents

Introduction to building structures layout, loading on building, forces and reaction in structures. Concurrent coplanar forces and moment of forces. 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. Determine the type of structures and loadings react on a low rise building;
2. Show calculation on forces react on members of building structures; and
3. Show safe sections for building structures.

Assessment:

Continuous Assessment 60%
Final Examination 40%

BIB2018
3 credits

BUILDING DILAPIDATION SURVEY

Synopsis of Course Contents

Dilapidations are breaches of contract / leases due to the condition of the property being purchased, leased, either during or at the end of the lease period. Property owners and tenants will normally be advised by a specialist surveyor or property consultant by carrying out a dilapidations survey that provides detailed survey recording the condition of building components and systems down to minor wear and tear. The outcomes of the dilapidation report will recommend appropriate method of statements with relevant standards code of practice. This course also aims to expose students to the survey project that is involving the related community/authority.

Learning Outcomes

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

1. Determine various types of building defects occurred at different building components;
2. Implement inspection and diagnosis of building defects with scientific principles;
3. Prepare the inspection outcomes with specification of repairs; and
4. Synthesise the outcome of inspection with meaningful community engagement.

Assessment:

Continuous Assessment 100%

BIB2019
4 credits

INTEGRATED PROJECT III – BUILDING SERVICES AUDIT

Synopsis of Course Contents

Application on plan checking of the building services systems, the layout, sizes and numbers; with the combination of required legislation and guidelines in conducting building audits on the performance of mechanical, electrical, plumbing and other building services systems; the adaptation of sustainable in building services refurbishment work.

Learning Outcomes

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

1. Report building services problems which include the installation, operation and function based on legislation requirement and other related guideline;
2. Show building services requirement through calculation, plan checking and building audit; and
3. Present a proposed sustainable refurbishment plan for building services to achieve optimum and effective performance.

Assessment:

Continuous Assessment 100%

BIB2020
3 credits

ACCOUNTING & FINANCIAL MANAGEMENT

Synopsis of Course Contents

This course deals with the concept and basic principles of accounting which include balance sheet, ledger, trading account, and profit-and-loss account. The course also introduces financial management which provides an understanding on accounting ratio and the application of financial statements.

Learning Outcomes

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

1. Describe the basic principles in accounting and financial management in accordance to accounting standards;
2. Describe the theories, concepts and practice in accounting and financial management; and
3. Show the application of a financial statement.

Assessment:

Continuous Assessment 40%
Final Examination 60%

BIB2021
3 credits

RISK & CONSTRUCTION SAFETY

Synopsis of Course Contents

Introduction to the scope of risk, safety and health in the construction industry. Risks and hazards, law and legislation pertaining occupational health (OSHA 1994). Guidelines of construction work controls. Roles, importance and management of safety and health. Characteristics, policies, inspection, manuals and procedures. Worksite accidents: reporting, control and prevention. Explanation on current case studies involving health and safety issues in the construction industry.

Learning Outcomes

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

1. Explain health and safety scenarios in the construction industry in Malaysia;
2. Study the needs of health and safety management in the construction industry on related legislation;
3. Describe the procedure of risk management in the construction industry, and
4. Complete technical report based on health and safety management in the construction industry.

Assessment:

Continuous Assessment 60%
Final Examination 40%

BIB 2022
4 credits

Integrated Project IV – Building Performance & Simulation

Synopsis of Course Contents

Application of practice, processes and procedures of inspections after occupancy; building quality inspections and reports; focus on Building Assessment after occupancy by promoting best practices and understanding the requirements of BPE; knowledge of architectural design principles, building construction, property building materials and technical building systems to better understand their needs with each other in terms of the building performance; able to evaluate different design concepts in terms of integration of technical systems, energy efficiency and sustainability; knowledge of simulation techniques and the introduction of theoretical and operational principles of technology to achieve a quality internal environment.

Learning Outcomes

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

1. Conclude the benefits, concepts, assumptions and limitations of building performance simulation methods;
2. Integrate a systematic and in-depth approach in identifying building failures in phase after construction period; and
3. Justify Building Performance Assessment (BPE) in meeting design goals for resource use and building-building satisfaction.

Assessment:

Continuous Assessment	100%
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BIB2023
3 credits

PROCUREMENT, CONTRACT & SPECIFICATION

Synopsis of Course Contents

Introduction to the standard methods of measurement and specification (SMM 2). Application of measurement forms and collection of measurement methods and writing description. Quantification for renovation works, refurbishment, internal and external buildings and estimation preparation. Types of contract: Built, Operate and Transfer (BOT), direct negotiation, design and built, turnkey, lump sum, joint venture, privatisation. 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. Arrange job specification and quotations (PWD/PAM) and construction price estimation for internal and external building measurement works; and
4. Show method of payment for work progress and variation order.

Assessment

Continuous Assessment	60%
Final Examination	40%

BIB 3011
3 credits

FUNDAMENTAL OF PROPERTY VALUATION & TAXATION

Synopsis of Course Contents

This course provides principles that determine the value of real estate, by introducing mathematical evaluation, calculations in property valuation. This also contains legislation relating to valuation statute namely the Local Government Act 1976, Town and Country Planning Act 1976, Stamp Duty Act 1949, Real Property Gains Tax Act 1967, Customs Act 1967 and Income Tax Act 1967

Learning Outcomes

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

1. Show the fundamentals of real estate and market value;
2. Appraise valuation based on valuation principles; and
3. Adapt appropriate valuation methods to evaluate various types of property and taxation purposes.

Assessment

Continuous Assessment	60%
Final Examination	40%

BIB 3012
3 credits

FACILITY MANAGEMENT SERVICES

Synopsis of Course Contents

Introduction to facility management functions, business organisation relationships to ensure a productive and sustainable work environment; operational management operations skills for an organisation in strategic, tactical and operational contexts; discusses the concepts and techniques of writing business plans. In addition, well designed business plans provide an operational framework that allows the business to enjoy distinct competitive advantages. Furthermore, the right facilities must be on- line at the right time. In this context, it follows that strategic facilities planning (SFP) are a business planning activity. The process integrates a company's business plan with its plan for the short- and long-term acquisition and disposition of facilities. This, in turn, should result in increased profits for the organisation.

Learning Outcomes

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

1. Apply professional facility management function in public or private sector in delivering optimal services with due consideration for cost and efficiency;
2. Show knowledge and understanding of business planning activities contributing to the achievement of corporate objective; and
3. Present an effective strategic facility plan to reach financial performance and productivity goals by integrating short- and long- term facility planning in aligned with the organization's business plan.

Assessment:

Continuous Assessment	60%
Final Examination	40%

BIB 3013
3 credits

BUILDING CONSERVATION

Synopsis of Course Contents

Introduction to the significant values of existing buildings, principles and practice, techniques and methods of building conservation. It includes approaches and practices in conserving buildings according to existing legislation.

Learning Outcomes

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

1. Determine the principles and practice, techniques and methods of building conservation;
2. Show various conservation approaches and practices; and
3. Perform building evaluation for conservation purposes.

Assessment:

Continuous Assessment	100%
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BIB 3014
3 credits

RESEARCH METHODOLOGY

Synopsis of Course Contents

Students will be exposed to the principles and fundamental research components. This includes defining research questions; critically assessing literature, exploring suitable quantitative and qualitative research methods, analytical thinking and ethics in research. Through this process, students will construct an effective research proposal that will serve as the continuing point for the study to be conducted in the coming semester.

Learning Outcomes

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

1. Describe the research process and the principle activities, skills and ethics associated with the research work;
2. Show methodological research approach in conducting research work; and
3. Prepare a coherent research proposal to its produce a report.

Assessment:

Continuous Assessment	100%
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BIB 3015 **INTEGRATED PROJECT V – PROJECT MANAGEMENT**
4 credits

Synopsis of Course Contents

This course emphasises the major theories and applications of two major aspects of the project namely the project management in building construction projects. It combines the project management theory in the built environment sector, especially for the building construction and its application in a comprehensive project management approach.

Learning Outcomes

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

1. Interpret the theory aspect of project management;
2. Integrate the project management theory in building construction projects; and
3. Propose suitable building construction projects based on the concept of comprehensive project management.

Assessment:

Continuous Assessment	60%
Final Examination	40%

BIB 3016 **PROPERTY ECONOMICS & INVESTMENT**
3 credits

Synopsis of Course Contents

This course introduces theory and understanding of economic principles in the economic environment, in particular referring to supply and demand in the built environment as well as macro and micro economic principles. This also includes related learning on urban land economy, land prices and real estate market structure. This course will also provide an understanding of urban contexts, economic approaches to various urban problems and related policies that can be used to address urban problems.

Learning Outcomes

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

1. Identify economic principles within economic environment;
2. Relate real estate with urban economics; and
3. Compare urban economic theories with regard to urban land use and urban problems.

Assessment:

Continuous Assessment	40%
Final Examination	60%

BIB 3017 **BUILDING SURVEYING PROFESSIONAL PRACTICE**
4 credits

Synopsis of Course Contents

This course focuses on introduction to Building Surveying and Property Management Profession, scope of work in the construction and building management sector, professional qualification, qualities, skills, codes and ethics. Contractual Relationship, Duties and Fees. Organization Management and Office Establishment, appointment and job interview, professionalism and recognition in local and global level.

Learning Outcomes

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

1. Interpret the importance and roles of building surveying and property management;
2. Show working approach of building surveying and property management; and
3. Study building surveyors' and property managers' roles and responsibilities.

Assessment:

Continuous Assessment	60%
Final Examination	40%

BIB 3018
3 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. This 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 resolution.

Learning Outcomes

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

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

Assessment:

Continuous Assessment	50%
Final Examination	50%

BIB 3019
3 credits

BUILDING CERTIFICATION

Synopsis of Course Contents

Introduction to the latest assessment and certification of buildings that include aspects of fire safety and risk, construction quality and green rating/certification. Fire safety certification focuses on understanding and application of fire risk assessment principles based on legislation requirements. Construction quality certification focuses on understanding construction quality assessment principles adopted by local and international assessment tools. Green rating/certification focuses on understanding triple bottom line principles adopted by local and international assessment tools.

Learning Outcomes

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

1. Interpret the aspects of fire risk, construction quality and green rating relating to buildings based on applicable legal requirements and standards;
2. Report building performance in terms of risk and probability of fire incidents; and
3. Determine fire safety strategy based on fire risk assessment and triple bottom line sustainable development.

Assessment:

Continuous Assessment	60%
Final Examination	40%

BIB 3020
3 credits

ACADEMIC RESEARCH

Synopsis of Course Contents

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

Learning Outcomes

At the end of the course students are able to:

1. Determine appropriate research methods and processes;
2. Analyse problems of an academic or practical significance in building surveying field;
3. Describe the application of theoretical concepts in practical context; and
4. Execute writing of academic report.

Assessment:

Continuous Assessment	100%
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BIB 4002
10 credits

INDUSTRIAL TRAINING

Synopsis of Course Contents

Introduction to professional working environment; applying comprehensive building surveying and property management skills as well as building construction knowledge; exposure to 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 industry working environment;
2. Integrate interpersonal, technical and managerial skills related with building surveying and property management; and
3. Practise work ethics and professionalism in an actual working environment.

Assessment:

Continuous Assessment 100%

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 the 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 Structure

Bachelor of Quantity Surveying

(7 Semesters and 1 Special Semester)

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 consists of 7 semesters and 1 special semester, with a total of 126 credits. 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.

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:

- PL01** Discover the relevant knowledge of quantity surveying in the construction industry.
- PL02** Identify strategic choices with supporting evidence for good judgement in the quantity surveying field.
- PL03** Apply the necessary technical and practical skills in the QS field.
- PL04** Develop digital knowledge to enhance self-development.
- PL05** The ability to communicate in a clear, reasonable and professional manner.
- PL06** The ability to show effective and efficient managerial and entrepreneurial skills in construction industry
- PL07** Demonstrate the leadership qualities towards relevant stakeholders in the industry
- PL08** Ability to work in a professional manner and commitment to ethical practice

ACADEMIC STAFF

HEAD



Associate Professor Sr Dr. Othman Mohamed, pqs
PhD (Knowledge Management), University of Salford, UK
M.Sc Building Technology, Universiti Sains Malaysia
M.Sc Information Management, Universiti Teknologi Malaysia
B. Quantity Surveying (Hons), Universiti Teknologi Malaysia
Dipl. Quantity Surveying, Universiti Teknologi MARA
Reg. Professional QS (BQSM), MRISM, MIVMM
Tel : 03-7967 5379
E-mail : othmanmohamed@um.edu.my

ASSOCIATE PROFESSORS



Associate Professor Sr Dr. Faizul Azli Mohd Rahim, cqs
PhD (Project Risk Management), University of Liverpool, UK
M.Sc IT in Property & Construction, University of Salford, UK
B.Sc (Hons) Quantity Surveying, University of Salford, UK
Reg. Consultant QS (BQSM), MRISM, MIVMM
Tel : 03-7967 7958
E-mail : azli@um.edu.my



Associate Professor Sr Dr. Hafez Salleh, cqs
PhD (Strategic IT Management), University of Salford, UK
M.Sc IT in Property & Construction, University of Salford, UK
B.Sc (Hons) Quantity Surveying, University of Salford, UK
Dipl. Quantity Surveying, Universiti Teknologi MARA
Reg. Consultant QS (BQSM), MRISM
Tel : 03-7967 4476
E-mail : hafez@um.edu.my



Associate Professor Sr Dr. Mohd Suhaimi Mohd Danuri, cqs
PhD (Business Law), Universiti Putra Malaysia
M. Construction Law, University of Melbourne, Australia
B. Quantity Surveying (Hons), Universiti Teknologi Malaysia
Dipl. Quantity Surveying, Universiti Teknologi Malaysia
Reg. Consultant QS (BQSM), ACIArb, MRISM, MIVMM
Tel : 03-7967 4473
E-mail : msuhaimi@um.edu.my



Associate Professor Dr. Norhanim Zakaria
PhD (Real Estate/Project Management), Universiti Teknologi Malaysia
M.Sc Construction Management, Universiti Teknologi Malaysia
B. Quantity Surveying (Hons), Universiti Teknologi Malaysia
Dipl. Quantity Surveying, Universiti Teknologi Malaysia
Reg. Provisional QS (BQSM), MIVMM, Graduate Member (RISM)
Tel : 03-7967 6875
E-mail : norhanimz@um.edu.my



Associate Professor Sr Dr. Saipol Bari Abd Karim, cqs
PhD in Business Admin. (Project Management), University of Manchester, UK
M.Sc Management of Project, University of Manchester, UK
B. Quantity Surveying (Hons), Universiti Malaya
Reg. Consultant QS (BQSM), FIVMM, FRISM, MACPM, M.SAVE Intl (USA)
Tel : 03-7967 6834
E-mail: saipolbari@um.edu.my



Associate Professor (Industry) Sr Ahmad Suhaimi Abdul Majid, cqs
M.Sc Integrated Construction Project Management, Universiti Teknologi MARA
B. Quantity Surveying, Nottingham Trent Univeristy
Reg. Consultant QS (BQSM), FRISM, FRICS, MIVMM
Tel : 03-7967 4496
E-mail : asamqs@um.edu.my

SENIOR LECTURERS



Sr Dr. Zulkiflee Abdul Samad, PMP
PhD (Project Management), University of Cambridge, UK
M.Sc (Project Management), Universiti Sains Malaysia
M.BA ESG Paris, France
M. Architecture, University of Newcastle, Australia
B. Quantity Surveying (Hons), Universiti Teknologi MARA
Proj. Mgmt. Professional (PMP), FAPM (UK), MRICS, MRISM, MCIQB
Tel : 03-7967 4474
E-mail : zulkiflee1969@um.edu.my



Sr Dr. Umi Kalsum Zolkafli @ Zulkifly, cqs
PhD (Building Conservation), Universiti Teknologi MARA
M.Sc Construction Contract Management, Universiti Teknologi Malaysia
B. Quantity Surveying (Hons), Universiti Teknologi MARA
Dipl. Quantity Surveying, Universiti Teknologi MARA
Reg. Consultant QS (BQSM), FRISM
Tel : 03-7967 7604
E-mail : umi@um.edu.my



Dr. Mahanim Hanid
PhD (Construction Management), University of Salford, UK
M.Sc Building Technology, Universiti Sains Malaysia
B. Quantity Surveying (Hons), Universiti Malaya
Dipl. Quantity Surveying, Universiti Teknologi Malaysia
Reg. Provisional QS (BQSM), Graduate Member (RISM)
Tel : 03-7967 6872
E-mail : mahanim@um.edu.my



Sr Dr. Kho Mei Ye, cqs
PhD (Project Management), Universiti Malaya
M.Sc (Building), Universiti Malaya
B. Quantity Surveying (Hons), Universiti Malaya
Reg. Consultant QS (BQSM), MRISM
Tel : 03-7967 2457
E-mail: meiy@um.edu.my



Sr Dr. Loo Siaw Chuing, pqs
PhD (Project & Construction Management), Universiti Malaya
M.Sc (Building), Universiti Malaya
B. Quantity Surveying (Hons), Universiti Malaya
Reg. Professional QS (BQSM), MRISM
Tel : 03-7967 7959
E-mail : siawchuing@um.edu.my



Sr Dr. Nurshuhada Zainon, pqs
PhD (IT Management), Universiti Malaya
M.Sc Construction Economics & Management, University College London, UK
B. Quantity Surveying (Hons), Universiti Malaya
Reg. Professional QS (BQSM), MRISM
Tel : 03-7967 2461
E-mail: zshuhada@um.edu.my



Dr. Nur Mardhiyah Aziz
PhD (IT in Construction), Universiti Malaya
M.Sc Facilities Management, Universiti Teknologi MARA
B.Sc (Housing, Building & Planning) (Quantity Surveying) (Hons), Universiti Sains Malaysia
Reg. Provisional QS (BQSM), Graduate Member (RISM)
Tel : 03-7967 4587
E-mail: nurmardhiyah@um.edu.my

LECTURERS



Sr Imran Ariff Yahya, pqs
M.Sc (Building), Universiti Malaya
B.Sc (Hons) Quantity Surveying, University of Salford, UK
Reg. Professional QS (BQSM), MRISM
Tel : 03-7967 6846
E-mail : imranariff@um.edu.my



Maznah Othman
M.Sc (Project Management), Universiti Sains Malaysia
B.Sc (Hons) Housing, Planning & Building, Universiti Sains Malaysia
MIVMM
Tel : 03-7967 6847
E-mail : maznah_o@um.edu.my

EXTERNAL ASSESSORS



Professor Dr. Ling Yean Yng, Florence
Department of Building, School of Design and Environment
National University of Singapore
PhD, (1998) National University of Singapore
M.Sc (Intl Constrn Mngt) (Guthrie Gold Medal)
B.Sc (Building) (First Class Hons), (1987) National University of Singapore
Member of the Royal Institution of Chartered Surveyors
Fellow of Singapore Institute of Surveyors and Valuer
E-mail: bdglyy@nus.edu.sg



Sr Jailani Bin Jasmani, cqs
Director, JUB Central Sdn Bhd (Consultant QS Practice)
Director, Perunding Maju Arah Sdn Bhd (Multi-Disciplinary Practice)
B. Applied Science (Quantity Surveying), WAIT
Reg. Consultant QS (BQSM), MRISM, MICEC, MMWA
E-mail: jailani.jubc@gmail.com

PROGRAMME STRUCTURE: BACHELOR OF QUANTITY SURVEYING

CATEGORY	NO	CODE	SUBJECT	YEAR I		YEAR II		YEAR III			YEAR IV	TOTAL CREDIT	PRE-REQUISITE	
				S1	S2	S1	S2	S1	S2	S3	S1			
MEASUREMENT	1	BIC 1016	Principles of Measurement for Construction Works I		4							20 (16%)		
	2	BIC 2013	Principles of Measurement for Construction Works II			4								BIC 1016
	3	BIC 2019	Measurement of Advanced Construction Works I				4							BIC 2013
	4	BIC 3011	Measurement of Advanced Construction Works II					4						BIC 2019
	5	BIC 4002	Measurement of Civil Engineering Works								4			BIC 3011
PROFESSIONAL PRACTICE	6	BIC 2021	Pre-Construction QS Practices				3					6 (5%)		
	7	BIC 3013	QS Practices in Construction					3						
TECHNOLOGY IN CONSTRUCTION	8	BIC 1011	Introduction to Construction Technology	3								19 (15%)		
	9	BIC 1017	Materials and Structure in Construction		3									BIC 1011
	10	BIC 2014	Sustainable Construction Technology			3								
	11	BIC 2020	Civil Engineering Construction Technology				3							
	12	BIC 3014	Digital Construction					3						
	13	BIC 1015	Building Services	2										
	14	BIC 2017	Mechanical and Electrical Services in Buildings			2								
MANAGEMENT IN CONSTRUCTION	15	BIC 1014	Principles of Management	2								8 (6%)		
	16	BIC 2016	Project Management Principles			3								
	17	BIC 3012	Construction Project Management					3						
ECONOMICS	18	BIC 1012	Principles of Economics	3								18 (14%)		
	19	BIC 1018	Construction Economics		3									
	20	BIC 2015	Building Economics			3								
	21	BIC 3015	Data Analytics					3						
	22	BIC 2018	Analysis of Prices			3								
	23	BIC 4003	Construction Business and Development								3			
LAW	24	BIC1013	Malaysian Legal Studies	2								8 (6%)		
	25	BIC2022	Pre-Construction Legal Studies				3							
	26	BIC4004	Construction Legal Studies								3			

CATEGORY	NO	CODE	SUBJECT	YEAR I		YEAR II		YEAR III			YEAR IV	TOTAL CREDIT	PRE-REQUISITE	
				S1	S2	S1	S2	S1	S2	S3	S1			
INTEGRATED PROJECT	27	BIC2023	Integrated Project I				4					8 (6%)		
	28	BIC4005	Integrated Project II								4			
RESEARCH & TRAINING	29	BIC3016	Research Methodology for Quantity Surveying					3				13 (11%)		
	30	BIC4006	Research Project								3		BIC3016	
	31	BIC3017	Professional Internship I						4					
	32	BIC3018	Professional Internship II								3			BIC3017
PROGRAMME ELECTIVE COURSE	33		Program Elective 1		3							6 (5%)		
	34		Program Elective 2								3			
UNIVERSITY COURSES	35	GIG1012/ **GLT1017	Philosophy and Current Issue/ **Basic Malay Language	2								20 (16%)		
	36	GIG1013	Appreciation of Ethics and Civilization		2									
	37	GIG1003	Basic Entrepreneurship Enculturation			2								
	38	GXXxxxx	Co-Curriculum		2									
	39	GLTxxxx	English I	2										
	40	GLTxxxx	English II				2							
	41		Student Holistic Empowerment (S.H. E.) I	2										
	42		Student Holistic Empowerment (S.H. E.) II		2									
	43		Student Holistic Empowerment (S.H. E.) III				2							
	44		Student Holistic Empowerment (S.H. E.) IV					2						
TOTAL SUBJECT BREAKDOWN			CREDITS	18	19	20	21	21	4	3	20	126		
			SUBJECTS	8	7	7	7	7	1	1	6	44		
			UNIVERSITY COURSES	3	3	1	2	1	0	0	0	10	44	
			PROGRAM COURSES	5	4	6	5	6	1	1	6	34		

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 QUANTITY SURVEYING

COMPONENTS	YEAR 1 (Bachelor of Quantity Surveying)						TOTAL CREDIT	
	SEMESTER 1			SEMESTER 2				
	COURSE CODE	COURSE TITLE	CREDIT	COURSE CODE	COURSE TITLE	CREDIT		
Compulsory University Courses	GIG1012/ GLT1017*	Philosophy and Current Issue/ Basic Malay Language*	2	GIG1013	Appreciation of Ethics and Civilization	2	8	
	GLTxxxx	English I	2	GXXxxxx	Co-Curriculum	2		
Program Core Courses	BIC1011	Introduction to Construction Technology	3	BIC1016	Principles of Measurement for Construction Works I	4	22	
	BIC1012	Principles of Economics	3	BIC1017	Materials and Structure in Construction	3		
	BIC1013	Malaysian Legal Studies	2	BIC1018	Construction Economics	3		
	BIC1014	Principles of Management	2					
	BIC1015	Building Services	2					
University Elective Courses		Student Holistic Empowerment (S.H. E.) I	2		Student Holistic Empowerment (S.H. E.) II	2	4	
Program Elective Courses					Program Course Elective#	3	3	
Total Credit			18	Total Credit			19	37

COMPONENTS	YEAR 2 (Bachelor of Quantity Surveying)						TOTAL CREDIT	
	SEMESTER 1			SEMESTER 2				
	COURSE CODE	COURSE TITLE	CREDIT	COURSE CODE	COURSE TITLE	CREDIT		
Compulsory University Courses	GIG1003	Basic Entrepreneurship Enculturation	2	GLTxxxx	English II	2	4	
Program Core Courses	BIC2013	Principles of Measurement for Construction Works II	4	BIC2019	Measurement of Advanced Construction Works I	4	35	
	BIC2014	Sustainable Construction Technology	3	BIC2020	Civil Engineering Construction Technology	3		
	BIC2015	Building Economics	3	BIC2022	Pre-Construction Legal Studies	3		
	BIC2016	Project Management Principles	3	BIC2021	Pre-Construction QS Practices	3		
	BIC2017	Mechanical and Electrical Services in Buildings	2	BIC2023	Integrated Project I	4		
	BIC2018	Analysis of Prices	3					
University Elective Courses					Student Holistic Empowerment (S.H. E.) III	2	2	
Total Credit			20	Total Credit			21	41

COMPONENTS	YEAR 3 (Bachelor of Quantity Surveying)									TOTAL CREDIT	
	SEMESTER 1			SEMESTER 2			SPECIAL SEMESTER				
	COURSE CODE	COURSE TITLE	CREDIT	COURSE CODE	COURSE TITLE	CREDIT	COURSE CODE	COURSE TITLE	CREDIT		
Program Core Courses	BIC3011	Measurement of Advanced Construction Works II	4	BIC3017	Professional Internship I	4	BIC3018	Professional Internship II	3	26	
	BIC3013	QS Practices in Construction	3								
	BIC3012	Construction Project Management	3								
	BIC3014	Digital Construction	3								
	BIC3015	Data Analytics	3								
	BIC3016	Research Methodology for Quantity Surveying	3								
University Elective Courses		Student Holistic Empowerment (S.H. E.) IV	2						2		
Total Credit			21	Total Credit			4			3	28

COMPONENTS	YEAR 4 (Bachelor of Quantity Surveying)						TOTAL CREDIT
	SEMESTER 1			SEMESTER 2			
	COURSE CODE	COURSE TITLE	CREDIT	COURSE CODE	COURSE TITLE	CREDIT	
Program Core Courses	BIC4002	Measurement of Civil Engineering Works	4				17
	BIC4003	Construction Business & Development	3				
	BIC4004	Construction Legal Studies	3				
	BIC4005	Integrated Project II	4				
	BIC4006	Research Project	3				
University Elective Courses		Programme Elective Course#	3				3
Total Credit			20	Total Credit			20

OVERALL TOTAL CREDIT: 126

*Non-Malaysian

List of Course Elective Program

BIC4007 - Risk and Value Management (3 credit)

BIC4008 - QS Practices in Building Conservation (3 credit)

BIC4009 - Facilities Management (3 credit)

PROGRAMME CORE COURSES

BIC1011
3 credits

INTRODUCTION TO CONSTRUCTION TECHNOLOGY

Synopsis of Course Contents

This course covers knowledge about current building technologies. This includes the construction of WBLFF, frame, floors, stairs, wall, roof, doors, windows, and finishes.

Learning Outcomes

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

4. Identify the basics of building elements;
5. Explain the construction process involved for the low-rise building; and
6. Apply knowledge of building technology in the quantity surveying field.

Assessment:

Continuous Assessment	40%
Final Examination	60%

BIC1012
3 credits

PRINCIPLES OF ECONOMICS

Synopsis of Course Contents

This course introduces the principles of economics and current issues in construction organisation and industry. It includes industry revolutions, economies of scales, theories of supply and demand, market equilibrium, fiscal and monetary policy, inflation and unemployment, income and output of the nation, international trade, theories of firm and GDP.

Learning Outcomes

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

1. Identify the relevant economic principles in the context of the construction industry;
2. Explain the basic principles of economics that impact national and international development in the context of the construction industry; and
3. Apply principles of economics in construction industry related decision making.

Assessment:

Continuous Assessment	50%
Final Examination	50%

BIC1013
2 credits

MALAYSIAN LEGAL STUDIES

Synopsis of Course Contents

This course focuses on the Malaysian Legal System. It includes the concept of Malaysian law, sources, and the judicial system. This course also covers the law of contract (Contracts Act 1950) emphasising on elements of contract, privity of contract, discharging of contracts and remedies. The knowledge on law of torts includes negligence, duty of care, breach of duty, remoteness, professional negligence, nuisance and trespass to land.

Learning Outcomes

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

1. Identify the sources, principles, processes and procedures of the Malaysian legal system;
2. Explain the legal issues related to law of contract and tort; and
3. Apply the knowledge of law of contract and tort.

Assessment:

Continuous Assessment	40%
Final Examination	60%

BIC1014
2 credits

PRINCIPLES OF MANAGEMENT

Synopsis of Course Contents

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

Learning Outcomes

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

1. Identify basic principles of management;
2. Explain the concepts and principles of management; and
3. Apply principles of management in the organisational decision making process.

Assessment:

Continuous Assessment	40%
Final Examination	60%

BIC1015
2 credits

BUILDING SERVICES

Synopsis of Course Contents

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

Learning Outcomes

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

1. Identify various essential buildings services;
2. Describe the systems or operations of essential building services; and
3. Describe the basic requirements for the installation of essential building services.

Assessment:

Continuous Assessment	40%
Final Examination	60%

BIC1016
4 credits

PRINCIPLES OF MEASUREMENT FOR CONSTRUCTION WORKS I

Synopsis of Course Contents

This course covers the principles and standard methods of measurement in accordance with the Malaysian Standard Method of Measurement of Building Works Second Edition (SMM2). This course will help the students to interpret and understand construction drawings for the development of the quantity surveying profession. This includes the 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 Malaysian Standard Method of Measurement of Building Works Second Edition (SMM2);
2. Apply the principles of SMM2 for Works Below Lowest Floor Finish (W.B.L.F.F) element; and
3. Taking-off the quantities of Works Below Lowest Floor Finish (W.B.L.F.F.) element from drawings

Assessment:

Continuous Assessment	100%
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BIC1017
3 credits

MATERIALS AND STRUCTURE IN CONSTRUCTION

Synopsis of Course Contents

This 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 pre- fabrication work.

Learning Outcomes

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

1. Identify advanced technology in construction;
2. Explain the construction process involved in advanced technology in construction; and
3. Apply knowledge in the field of advanced technology in construction in the quantity surveying field.

Assessment:

Continuous Assessment	40%
Final Examination	60%

BIC1018
3 credits

CONSTRUCTION ECONOMICS

Synopsis of Course Contents

This course introduces the importance of cost management, concept of price, value and profits, feasibility and profitability, return on investment (ROI), Net Present Value (NPV), International Construction Measurement Standard (ICMS), procurements including Public Private Partnerships (PPP) in construction lifecycle.

Learning Outcomes

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

1. Describe the fundamentals of cost management from the perspective of firms and construction projects;
2. Comprehend the methods and techniques related to cost management; and
3. Apply appropriate cost management techniques for construction projects.

Assessment:

Continuous Assessment	50%
Final Examination	50%

BIC2013
4 credits

PRINCIPLES OF MEASUREMENT FOR CONSTRUCTION WORKS II

Synopsis of Course Contents

This course covers the principles and functions of the standard methods of measurement in accordance with the Malaysian Standard Method of Measurement of Building Works Second Edition (SMM2). This course includes the principles and functions of the Standard Method of Measurement 2 (SMM2) for frame, upper floor slab, staircase, door, window and finishes. This will also include the Building Information Modelling (BIM) for measurement of 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 frame, upper floor slab, staircase, door, window and finishes;
2. Apply principles of specification writing for frame, upper floor slab, staircase, door, window and finishes; and
3. Measure the quantities of the element of frame, upper floor slab, staircase, door, window and finishes from drawings.

Assessment:

Continuous Assessment	100%
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BIC2014
3 credits

SUSTAINABLE CONSTRUCTION TECHNOLOGY

Synopsis of Course Contents

This course introduces to sustainability and sustainable construction; sustainable indicators, tools and benchmarks; materials for sustainable constructions; economics of sustainability (Environmental impacts of construction: A life cycle approach & management), sustainable assessment - Green Building Rating System, energy resources – energy efficient buildings; sustainable construction techniques, sustainable design in practice and site visit.

Learning Outcomes

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

1. Describe the various types of sustainable construction technology and their uses according to the specific requirements of a project;
2. Examine the process of execution, monitoring, controlling of sustainable construction projects; and
3. Apply the knowledge of sustainable construction technology in areas related to quantity surveying.

Assessment:

Continuous Assessment	40%
Final Examination	60%

BIC2015
3 credits

BUILDING ECONOMICS

Synopsis of Course Contents

This course emphasises the development process, economics of building morphology, life cycle costing (LCC), buildability, building cost information standard (BCIS), elementary cost analysis (ECA), cost estimation, financial impact, cost planning & control, cost data, indices and profitability for building lifecycle.

Learning Outcomes

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

1. Describe the development process through the principles of building economics theories;
2. Comprehend the project buildability with appropriate methods and techniques; and
3. Apply the building economics theories for decision making in the whole building life cycle.

Assessment:

Continuous Assessment	50%
Final Examination	50%

BIC2016
3 credits

PROJECT MANAGEMENT PRINCIPLES

Synopsis of Course Contents

This course introduces the principles of project management, project organisations, project information and communication, project management processes which include initial and planning phases, motivation and team working in project management. This course explores the usage of project management related software such as MS Project.

Learning Outcomes

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

1. Describe the principles and processes of project management in construction;
2. Identify tools and techniques for time and cost management of projects in a construction environment; and
3. Apply project management software in the initial and planning phase of project management.

Assessment:

Continuous Assessment	40%
Final Examination	60%

BIC2017
2 credits

MECHANICAL AND ELECTRICAL SERVICES IN BUILDINGS

Synopsis of Course Contents

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

Learning Outcomes

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

1. Identify various essential mechanical and electrical (M & E) building services;
2. Describe the systems or operations of M & E building services; and
3. Explain the functions and suitability of specific equipment for essential M & E building services.

Assessment:

Continuous Assessment	40%
Final Examination	60%

BIC2018
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; and
3. Describe and apply analysis of price rates for construction works.

Assessment:

Continuous Assessment	40%
Final Examination	60%

BIC2019
4 credits

MEASUREMENT OF ADVANCED CONSTRUCTION WORKS I

Synopsis of Course Contents

This course includes the principles and function of Standard Method of Measurement 2 (SMM2) for roof, steel structure, Mechanical & Electrical works and external works. The course also covers the 'Building Information Modelling' (BIM) for 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 2 (SMM2) for roof, steel structure, piping works and external works;
2. Apply the principle of specification writing for roof, steel structure, Mechanical & Electrical works, piping works and external works; and
3. Apply skills of taking off quantities for construction works and estimating based on drawing for roof, steel structure, piping works and external works.

Assessment:

Continuous Assessment	100%
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BIC2020
3 credits

CIVIL ENGINEERING CONSTRUCTION TECHNOLOGY

Synopsis of Course Contents

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

Learning Outcomes

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

1. Define and describe the principles and methods of various types of civil engineering construction works,
2. Apply the knowledge in identifying problems in civil engineering construction works, and
3. Demonstrate the ability to produce the alternative solutions in specific building construction and more complex civil engineering works.

Assessment:

Continuous Assessment	40%
Final Examination	60%

BIC2022
3 credits

PRE-CONSTRUCTION LEGAL STUDIES

Synopsis of Course Contents

This course covers the principles of construction law, roles and objectives of construction law, construction contracts and the related legal issues at the pre- construction stage. It includes issues arising from the use of Building Information Modelling (BIM), and 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 aspects of claims, repudiation and breach of contract.

Learning Outcomes

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

1. Identify the legal principles and alternative dispute resolution in construction law;
2. Explain the legal issues arises in the implementation of projects at the pre- construction stage;
3. Apply the knowledge in giving views that are proficient, logical and professionally sound on the legal issues in the implementation of projects at the pre-construction stage.

Assessment:

Continuous Assessment	40%
Final Examination	60%

BIC2021
3 credits

PRE-CONSTRUCTION QS PRACTICES

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. Potential roles of quantity surveyors in any other industries will be explored. This course will cover the appointment, fees and professional ethics, administration of quantity surveying firms and procurement of contracts. It also covers various aspects of professional practice during the pre-contract stage from the inception to the preparation of contract documents. Reference will be made to the relevant provisions in the standard forms of construction contract and related government circulars. The legal impacts of Building Information Modelling (BIM) will also be covered in this course.

Learning Outcomes

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

1. Identify the responsibilities and role of quantity surveyors in the construction industry and other related industries;
2. Explain the professional practices and contractual procedures at the pre-construction stage;
3. Solve problems related to the practices and procedures in the construction contract administration at the pre-construction stage.

Assessment:

Continuous Assessment	40%
Final Examination	60%

BIC2023
4 credits

INTEGRATED PROJECT I

Synopsis of Course Contents

This course is tailored to encourage students to explore the construction technology of a building or infrastructure project. The subject of a project focuses on current issues and will be reflective of a real-life project. Such exercise may include (and not limited to) proposing a development, identifying issues, proposing and evaluating the impacts of recommendations. Students need to work in a group and they are required to integrate their knowledge into their overall project work.

Learning Outcomes

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

1. Identify the importance of knowledge integration focusing on building technology in construction industry;
2. Determine the concepts, principles, techniques and appropriate knowledges related to building technology in construction industry; and
3. Apply knowledge and skills for real life problem solving related to the construction industry.

Assessment:

Continuous Assessment 100%

BIC3011
4 credits

MEASUREMENT OF ADVANCED CONSTRUCTION WORKS II

Synopsis of Course Contents

This course includes the principles and function of Standard Method of Measurement (SMM2) for piling works, basement works, and demolitions works. The course also covers the 'Building Information Modelling' (BIM) for 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 2 (SMM2) 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; and
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 100%

BIC3012
3 credits

CONSTRUCTION PROJECT MANAGEMENT

Synopsis of Course Contents

This course introduces project management processes which include execution, monitoring, controlling and closure phases, project management in the digital era of construction, green project management, success factors, project health & safety in construction and international project management.

Learning Outcomes

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

1. Describe project management processes which include execution, monitoring, controlling and closure phases;
2. Examine project management success factors in construction; and
3. Explain project management in the digital era of construction, green project management and international project management.

Assessment:

Continuous Assessment 40%
Final Examination 60%

BIC3013
3 credits

QS PRACTICES IN CONSTRUCTION

Synopsis of Course Contents

This course delivers an overview of quantity surveying practices during the construction contract administration of construction projects. It covers construction stage and contract management starting from the issuance of a letter of acceptance to the completion of the project. It covers various aspects of professional practice and contractual procedures regarding progress payments, variation order, extension of time and final account claims. References are made to relevant provisions in the standard forms of contracts and government circulars. The legal impacts of Building Information Modelling (BIM) will also be covered in this course.

Learning Outcomes

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

1. Identify professional practices and contractual procedures at the construction stage;
2. Explain the contract administration at construction stage; and
3. Solve problems related to the practices and procedures in the construction contract administration at the construction contract stage.

Assessment:

Continuous Assessment	40%
Final Examination	60%

BIC3014
3 credits

DIGITAL CONSTRUCTION

Synopsis of Course Contents

This course discovers how digital technologies and data mediate and support the construction process. It covers the digital technology theories and practices in integrated construction project delivery, such as Building Information Modelling (BIM), visualisation such as virtual reality (VR) and augmented reality (AR), Internet-of-Things (IoT), artificial intelligence (AI), and digital security. This course also exposes students to software as a tool to effectively manage construction information related to Quantity Surveying at a design stage to benefit the whole construction and building life cycle, namely Revit Architectural, Revit Structural, and Navisworks.

Learning Outcomes

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

1. Identify relevant digital applications in managing construction information;
2. Explain the impacts of digital technologies on a construction project in delivering better whole-life value; and
3. Apply the appropriate digital applications in an aspect of construction practice.

Assessment:

Continuous Assessment	100%
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BIC3015
3 credits

DATA ANALYTICS

Synopsis of Course Contents

This course focuses on interpreting the results of data analysis and taking decisions ethically for weaving a data-centric mindset into the construction business strategies.

Learning Outcomes

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

1. Describe theories, principles and concepts of the statistical methods, covering the use of quantitative and qualitative data analysis;
2. Analyse data based on theoretical and statistical methods for the purpose of addressing issues in the context of construction industry; and
3. Interpret data for decision making in a logical and professional way through effective communication.

Assessment:

Continuous Assessment	100%
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BIC3016
3 credits

RESEARCH METHODOLOGY FOR QUANTITY SURVEYING

Synopsis of Course Contents

This course provides basic groundings on how to conduct research in the quantity surveying field. It provides an introduction to the research methodology and research design.

Learning Outcomes

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

1. Identify research problems through systematic literature review;
2. Determine research methods for various types of research in Quantity Surveying; and
3. Develop research instruments for data collection.

Assessment:

Continuous Assessment 100%

BIC3017
4 credits

PROFESSIONAL INTERNSHIP I

Synopsis of Course Contents

This course extends the students knowledge on the professional quantity surveying practices. It exposes the students on the work procedure, the role of Quantity Surveyors in pre and post contract stages and communications with the construction project team.

Learning Outcomes

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

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

Assessment:

Continuous Assessment 100%

BIC3018
3 credits

PROFESSIONAL INTERNSHIP II

Synopsis of Course Contents

This course extends the students knowledge on the professional quantity surveying practices. It exposes the students on the work procedure, the role of Quantity Surveyors in pre and post contract stages and communications with the construction project team.

Learning Outcomes

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

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

Assessment:

Continuous Assessment 100%

BIC4002
4 credits

MEASUREMENT OF CIVIL ENGINEERING WORKS

Synopsis of Course Contents

This course includes the Method Related Charges, methods of measurement based on 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; and
3. Apply skills of taking off quantities based on drawings for civil engineering works.

Assessment:

Continuous Assessment 100%

BIC4003
3 credits

CONSTRUCTION BUSINESS AND DEVELOPMENT

Synopsis of Course Contents

This course emphasises the industry revolutions, sustainable development economics (which include Sustainable Development Goals, SDG), entrepreneurship in construction industry (including branding and marketing), construction business financial management, business ethics and social responsibility, international construction ventures and global strategies for construction firms.

Learning Outcomes

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

1. Describe the entrepreneurship opportunities in the construction industry;
2. Apply the business and development principles for construction business sustainability; and
3. Analyse the business and development strategies for entrepreneurship competitive edge.

Assessment:

Continuous Assessment 100%

BIC4004
3 credits

CONSTRUCTION LEGAL STUDIES

Synopsis of Course Contents

This course covers the legal principles of construction law at the construction stage. It includes legal issues related to site possession, progress payments, variation, extension of time, completion of works, final account claims, defects liability period, determination, disputes avoidance procedures and other contractual matters. It also covers legal issues arising from the use of Building Information Modelling (BIM). References are made to the relevant Acts and provisions of the local and international standard forms of construction contracts such FIDIC.

Learning Outcomes

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

1. Identify the legal principles of construction law at the construction stage;
2. Explain the legal issues that arise in the implementation of projects at the construction stage; and
3. Apply the knowledge in giving views that are proficient, logical and professionally sound on the legal issues in the implementation of projects at the construction stage.

Assessment:

Continuous Assessment 40%
Final Examination 60%

BIC4005
4 credits

INTEGRATED PROJECT II

Synopsis of Course Contents

This course is tailored to encourage students to explore the quantity surveying field at the pre- contract stage. The subject of a project focuses on current issues and will be reflective of a real-life project. Such exercise may include identifying issues, proposing and evaluating the impacts of recommendations. Students need to work in a group and they are required to integrate their knowledge into their overall project work.

Learning Outcomes

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

1. Identify the importance of knowledge integration in quantity surveying field at the pre-contract stage;
2. Define the concept, principles, techniques and appropriate knowledge in quantity surveying field at the pre-contract stage; and
3. Apply knowledge and skills for the real life problem solving in quantity surveying field at the pre-contract stage.

Assessment:

Continuous Assessment 100%

BIC4006
3 credits

RESEARCH PROJECT

Synopsis of Course Contents

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

Learning Outcomes

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

1. Demonstrate data representation using systematic data analysis;
2. Interpret data against research aim and objectives; and
3. Conclude the impacts, contributions and future recommendations of the research.

Assessment:

Continuous Assessment 100%

BIC4007
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 development process involved in the construction industry. Each element will be emphasised 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 basics knowledge of risks and value management required in the construction industry;
2. Explain the concepts and principles of risk and value management in the building industry; and
3. Practice the techniques and methods of risk and value management in the context of the industry.

Assessment:

Continuous Assessment 50%
Final Examination 50%

BIC4008
3 credits

QS PRACTICES IN BUILDING CONSERVATION

Synopsis of Course Contents

This course provides an introduction to the significant value of existing buildings, principles and practices, building conservation techniques and methods. It also includes methods and practices in building conservation based on existing laws. The practice of measuring materials in building conservation is also discussed.

Learning Outcomes

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

1. Identify the principles and practice, techniques and methods of building conservation;
2. Discuss various building conservation approaches and practices; and
3. Apply the knowledge of building conservation in quantity surveying practices.

Assessment:

Continuous Assessment	100%
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BIC4009
3 credits

FACILITIES MANAGEMENT

Synopsis of Course Contents

This module will provide students with knowledge and understanding of the job scope of a Facilities Manager and key functions of Facilities Management and its importance in an organisation. The subject aims to equip students with an overview of the scope and practices of facilities management in the construction industry. Students will be exposed to how a facility is being managed effectively, and how to leverage on technology to improve productivity for facilities management.

Learning Outcomes

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

1. Discuss the scope, practices, processes and procedures of facilities management;
2. Demonstrate the understanding of the roles and responsibilities of a facilities manager; and
3. Apply the appropriate facilities management concept to meet the core objectives of the business.

Assessment:

Continuous Assessment	40%
Final Examination	60%

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 program in line with the requirements of the Board of Town Planners Malaysia and Malaysian Institute of Planners. The program obtained the approval from the Ministry of Higher Education in March 2011, and the student intake 2011/2012 as its pioneer batch.

The Bachelor of 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 utilised 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 centre 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, analysed and examined, and strategies formulated. With reference to future employment opportunities, the detailed scope of works and services of urban/town planner include:

1. Prepare development plans such as national physical plan, structure plans, local plans and special area plans for the purposes of Town and Country Planning Act 1976;
2. 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;
3. 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;
4. Urban design and advocacy planning; and
5. Project management and other planning related services.

Program Structure

Bachelor of Urban & Regional Planning (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 knowledge that is not strictly restricted to their chosen discipline.

As practised 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 practised 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.

Program Aim

To produce professional town planning graduates who are creative, innovative, and critical in the development and implementation of sustainable spatial planning and competitive in managerial and technological aspects 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 resolving 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.

ACADEMIC STAFF

HEAD



Dr. Nikmatul Adha Nordin

PhD (Urban Planning) Universiti Sains Malaysia
M.Sc (Planning) Universiti Sains Malaysia
B.Sc Housing, Building & Planning, Universiti Sains Malaysia
Graduate Member, Malaysian Institute of Planners
Tel: 03-79677951
E-mail: nikmatul@um.edu.my

ASSOCIATE PROFESSORS



Associate Professor TPr. Dr. Melasutra Md Dali

PhD (Urban Planning), University of Melbourne, Australia
M.Sc (Urban and Regional Planning), University of Wisconsin, Madison, USA
B.Sc (Urban Studies & Envi. Planning), University of Wisconsin, Green Bay, USA
Registered Town Planner, Board of Town Planners Malaysia
Corporate Member, Malaysian Institute of Planners,
Member, Malaysian Social Impact Assessment Association
Tel: 03-7967 7950
E-mail: melasutr@um.edu.my



Associate Professor Gs. Dr. Rosilawati Zainol

PhD (Science), Universiti Teknologi MARA
MIMT, Universiti Tun Abdul Razak
B.A (cum laude) Arkansas State University, Arkansas, USA
Professional Member, Institution of Geospatial and Remote Sensing Malaysia
Associate Member, Malaysian Institute of Planners
Tel: 03-7967 5325
E-mail: rosilawatizai@um.edu.my



Associate Professor TPr. Dr. Goh Hong Ching

Dr. rer. nat., Rheinische Friedrich-Wilhelms-Universitaet Bonn, Germany
M.Sc (Tourism Planning) Universiti Teknologi Malaysia
B.Sc (Urban and Regional Planning), Universiti Teknologi Malaysia
Corporate Member, Malaysian Institute of Planners
Registered Town Planner, Board of Town Planners Malaysia
Tel: 03-7967 7606
E-mail: gohhc@um.edu.my



Associate Professor (Industry) TPr. Mohamed Jamil Ahmad

MSc. Urban and Regional Planning, University of Strathclyde, Scotland
B.A (Hons) Geography Universiti Malaya
Fellow, Malaysian Institute of Planners
Tel: 03-7967 5325
E-mail: jamil7798@um.edu.my

SENIOR LECTURERS



Dr. Yong 'Adilah Binti Shamsul Harumain

PhD Innovation Systems Engineering (Transport Planning), Utsunomiya University, Japan
M.Sc Land Administration and Development, Universiti Teknologi Malaysia
B.Sc (Urban and Regional Planning), Universiti Islam Antarabangsa Malaysia
Graduate Member, Malaysian Institute of Planners
Tel: 03-7967 6811
E-mail: adilah_shamsul@um.edu.my



Dr. Peter Aning Tedong

PhD (Housing studies), Universiti Malaya
M. Real Estate (MRE), Universiti Malaya
B.A (Major: Urban Studies and Planning, Minor: Geography), Universiti Malaya
Associate Member, Malaysian Institute of Planners
Tel: 03-7967 7953
E-mail: peteraning@um.edu.my



Gs. Dr. Nur Aulia Rosni

PhD in Built Environment, Universiti Islam Antarabangsa Malaysia
M.Sc Built Environment, Universiti Islam Antarabangsa Malaysia
B.Sc (Urban and Regional Planning), Universiti Islam Antarabangsa Malaysia
Graduate Member, Malaysian Institute of Planners
Professional Member, Institution of Geospatial and Remote Sensing Malaysia
Tel: 03-7967 7607
E-mail: nurauliarosni@um.edu.my



Dr. Zakaria Alcheikh Mahmoud

PhD Urban Planning and Design, SPA, India
M. Urban Planning, SPA, India
B. Architectural Eng. Al-Baath University Syria
Urban Planning Consultant, Syria
Member Architects Board, UAE
Tel: 03-7967 4493
E-mail: zakaria2009@um.edu.my



Dr. Teh Bor Tsong

PhD in Regional Environment Systems (Urban Planning and Design), Shibaura Institute of Technology, Japan
M.Sc (Urban and Regional Planning), Universiti Teknologi Malaysia
B.Sc (Urban and Regional Planning) (Hons), Universiti Teknologi Malaysia
Graduate Member, Malaysia Institute of Planners
Registered Graduate Town Planner, Board of Town Planners Malaysia
Tel: 03-7967 6844
Email: tehbortsong@um.edu.my



Dr. Nik Hazwani Hashim @ Nik Hashim

PhD (Real Estate Development and Environment), University Malaya
M.Sc (Planning), Universiti Sains Malaysia
B.Sc. Housing, Building & Planning, Universiti Sains Malaysia
Graduate Member, Malaysian Institute of Planner
Tel: 03-7967 4499
E-mail: nikhazwani@um.edu.my



Dr. Noor Hashimah Hashim Lim

PhD in Urban and Regional Planning, Universiti Teknologi Malaysia
M.Sc Project Management, National University of Singapore
B.Sc (Urban and Regional Planning), Universiti Teknologi Malaysia
Dipl. Urban and Regional Planning, Universiti Teknologi Malaysia
Tel: 03-7967 7959
E-mail: shimalim@um.edu.my

EXTERNAL EXAMINERS



Datin TPr. Noraida Saludin

BA (Honours) in Town and Country Planning, University of Manchester, United Kingdom
Post-Graduate Diploma in Planning, University of Manchester, United Kingdom
Registered Town Planner, Board of Town Planners Malaysia
Senior Associate / Head of Department, AJM Planning and Urban Design Group
Honorary Secretary, Malaysian Institute of Planners
Director, Low Carbon City and Sustainability Centre, Malaysian Institute of Planners
Board Member, Board of Town Planners Malaysia
Fellow Member, Malaysian Institute of Planners
Member, Badan Warisan Malaysia
E-mail : noraida@apudg.com / noraidasaludin@gmail.com



Professor Datuk Dr. Mizan Hitam

PhD (Urban Development: Policy and Strategy), University of Newcastle Upon Tyne, United Kingdom
M. City and Regional Planning, Ohio State University, Columbus, USA
B.Sc (Urban and Regional Planning), University of Southwestern Louisiana, Lafayette, USA
Registered Graduate Town Planner, Board of Town Planners Malaysia
Member Board of Appeal, Town and Country Planning, State of Melaka
Graduate Member, Malaysian Institute of Planners
Member of Public Hearing Committee of DBKL Kuala Lumpur Structure Plan 2040
Member of Wakaf Land Development of Melaka
E-mail : drmizanhitam@gmail.com

PROGRAMME STRUCTURE: BACHELOR OF URBAN AND REGIONAL PLANNING

CATEGORY	NO	CODE	SUBJECT	YEAR I		YEAR II		YEAR III		YEAR IV		TOTAL CREDIT	PRE-REQUISITE
				S1	S2	S1	S2	S1	S2	S1	S2		
COMPULSORY UNIVERSITY COURSES	1	GLT XXXX	English I	2								2	
	2	GLT XXXX	English II		2							2	
	3	GIG1012/ **GLT1017	Philosophy and Current Issues / ** Basic Malay Language		2							2	
	4	GIG1003	Basic Entrepreneurship Enculturation			2						2	
	5		Student Holistic Empowerment (S.H. E.) I				2					2	
	6	GIG1013	Appreciation of Ethics and Civilisations					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	GXXxxxx	Co-Curriculum							2		2	
PROGRAM CORE COURSES	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
	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	

CATEGORY	NO	CODE	SUBJECT	YEAR I		YEAR II		YEAR III		YEAR IV		TOTAL CREDIT	PRE-REQUISITE
				S1	S2	S1	S2	S1	S2	S1	S2		
	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 3014
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			CREDITS	17	19	20	20	19	20	16	8	139	
			SUBJECTS	5	6	6	6	6	6	5	1	41	
			UNIVERSITY COURSES	1	2	1	1	2	2	1	0	10	41
			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 / 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		
Total Credit			17	Total Credit			19	36

*Non Citizen

COMPONENTS	YEAR 2 (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	GIG1003	Basic Entrepreneurship Enculturation	2				2	
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 1			SEMESTER 2				
	COURSE CODE	COURSE TITLE	CREDIT	COURSE CODE	COURSE TITLE	CREDIT		
Compulsory University Courses	GIG1013	Appreciation of Ethics and Civilisations	2				2	
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			20	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 1			SEMESTER 2				
	COURSE CODE	COURSE TITLE	CREDIT	COURSE CODE	COURSE TITLE	CREDIT		
Compulsory University Courses	GXXxxxx	Co-Curriculum	2				2	
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					
Total Credit			16	Total Credit			8	24

TOTAL CREDIT: 139

PROGRAMME CORE COURSES

BID 1008
6 credits

PLANNING STUDIO I: FUNDAMENTAL PLANNING SKILLS

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; and
4. Present ideas through graphic illustrations using suitable techniques.

Assessment:

Continuous Assessment: 100%

BID 1009
3 credits

COMPUTER AIDED GRAPHIC DESIGN IN PLANNING

Synopsis of Course Contents

This course introduces the concepts of computer aided graphic design and its application using various design software. This course is intended to familiarise students with basic aspects of AutoCAD dan 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 urbanisation 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 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 and potential;
2. Apply the appropriate methodology for site planning; and
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 processes 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; and
4. Prepare a lay-out plan for the selected study site area.

Assessment:

Continuous Assessment	100%
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BID 1013
3 credits

LAND USE PLANNING

Synopsis of Course Contents

This course introduces the theory and practice of land use planning in urban environments. The term "land use" was determined as a part of social relations that define the way urban or region development. Land use planning is understood in a holistic sense that integrates 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 components, 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; and
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; and
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 type 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; and
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 applications 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 emphasises 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; and
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 the 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

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
3 credits

URBAN ECONOMICS

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
6 credits

PLANNING STUDIO IV: LOCAL DEVELOPMENT PLANNING (BID 2009)

Synopsis of Course Contents

This course covers the preparation of development plans 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; and
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. Detailed analysis and discussion on various case studies is conducted to link urban planning and development practice with existing real-world situations.

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; and
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

QUANTITATIVE 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 surveys, 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 and 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 a 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%
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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%
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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 urbanisation and climate change by referring to case studies locally and abroad. Discussions also emphasise 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 focuses on regional and rural planning as part of the town and country planning modules. It focuses 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 how the township development has taken place and the issues associated with 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. Synthesise 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%

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 conceptualising 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; and
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; and
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 introduces 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; and
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; and
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 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 the 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 practising 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 the urban planning profession in the context of the built environment.

Assessment:

Continuous Assessment	100%
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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 12 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 Structure

Bachelor of Real Estate

(7 Semesters and 1 Special Semester)

The programme is accredited by the Board of Valuers, Appraisers, Estate Agents and Property Managers Malaysia (BOVAEP) and by the 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).

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 the real estate community and the public.
- PLO5** Use analytical and technology applications to solve real estate problems.
- PLO6** Organise 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.

ACADEMIC STAFF

HEAD



Sr Dr. Ainoriza Mohd. Aini

PhD (Property Investment), Kingston University, UK
M.Sc (Corporate Real Estate Finance & Strategy), City University of London, UK
B. (Hons) (Estate Management), Universiti Malaya
Reg. Probationary Valuer, MRISM
Tel: 03-7967 5396
E-mail: ainoriza@um.edu.my

PROFESSORS



Professor Sr Dr. Anuar Alias

PhD (Property Development and Environment), Universiti Malaya
M.Sc (Project Management), USM
B.Surv. (Hons) (Property Management), Universiti Teknologi Malaysia
Dipl. (Valuation), Universiti Teknologi Malaysia
PGCert. (Professional Development), UCONN
Registered Valuer, Estate Agent and Property Manager
MRISM, MMIPFM
Tel: 03-7967 6835
E-mail: anuar_a@um.edu.my



Professor (Industry) Sr Mohd Khairudin Abd Halim

B.Surv.(Hons) Property Management, Universiti Teknologi Malaysia
PG Cert. (Valuation) & Property Management) Sheffield Hallam University, UK
Dipl. Valuation, Universiti Teknologi Malaysia
Chartered Surveyor, Registered Valuer, Estate Agent & Property Manager
FRICS, FRISM, FMIPFM, MBVAM, ICVS
Tel: 03-79672456
E-mail: khair62@um.edu.my

ASSOCIATE PROFESSORS



Associate Professor Sr Dr. Rosli Said

PhD (Real Estate Finance), University of Ulster, UK
M.Sc (Urban Land Appraisal), University of Reading, UK
B.Sc (Hons) (Land Management), University of Reading, UK
Dipl. (Property Valuation), Universiti Teknologi Malaysia
Chartered Surveyor, Registered Valuer, Estate Agent & Property Manager
MRISM, MMIPFM, MRICS
Tel: 03-7967 6886
E-mail: rosli_alambina@um.edu.my



Associate Professor Sr Dr. Yasmin Mohd Adnan

PhD (Urban Land Economy), Universiti Malaya
M.BA Universiti Teknologi MARA
B.Sc (Hons) (Land Management), University of Reading, UK
Registered Valuer, Estate Agent & Property Manager
FRISM, MRICS, MMIPFM
Tel: 03-7967 6845 / 5378
E-mail: yasmin_alambina@um.edu.my

SENIOR LECTURERS



Sr Dr. Hasniyati Hamzah

PhD (Property), University of Auckland, NZ
M. (Property Law), University of Aberdeen, UK
B.Sc (Land Management), University of Reading, UK
MRISM, MMIPFM
Tel: 03-7967 5389
E-mail: hasniyati@um.edu.my



Sr Dr. Zafirah Al Sadat Zyed

PhD (Housing Studies), Universiti Malaya
B. (Hons) (Estate Management), Universiti Malaya
Reg. Probationary Valuer, MRISM, MMIPFM
Tel: 03-7967 2454
E-mail: zafirahzyed@um.edu.my



Sr Dr. Zahiriah Yahya

PhD (Urban Land Economy), Universiti Malaya
M.Sc (Facilities Management), Universiti Teknologi MARA
B. (Hons) (Estate Management), Universiti Teknologi MARA
Dipl. (Estate Management), Universiti Teknologi MARA
Registered Valuer, Estate Agent & Property Manager
MRISM, MBVAM & ICVS
Tel: 03-7967 4590
E-mail: zahiriah@um.edu.my



Dr. Zairul Nisham Musa

PhD [Built Environment (Facilities Management)], Liverpool John Moores University, UK
M.Sc (Facilities Management), University of Greenwich, UK
B.Sc (Hons) (Estate Management), University of Luton, UK
Dipl. (Valuation), Universiti Teknologi Malaysia
Tel: 03-7967 4490
E-mail: zairul@um.edu.my



Dr. Noorame binti Mohd Foudzy

PhD (Property Finance & Investment), Universiti Malaya
M. (Real Estate), Universiti Malaya
B. (Estate Management), Universiti Malaya
Associate, Asian Institute of Chartered Bankers (AICB)
Tel: N/A
E-mail: ameyfoudzy@um.edu.my

LECTURERS



Sr Abdul Ghani Sarip

MSc. Geoinformatics (Geographical Information System), Universiti Teknologi Malaysia
B. (Hons) Estate Management, Universiti Malaya
Dipl. (Valuation), Universiti Teknologi Malaysia
MRISM
Tel: 03-7967 6861
E-mail: garna@um.edu.my



Sr Zulkifli Esha

M.Sc (Real Estate Development & Investment), University of Greenwich, UK
B.Sc (Hons) (Estate Management), University of Luton, UK
Dipl. (Valuation), Universiti Teknologi Malaysia
MRISM
Tel: 03-7967 6862
E-mail: zules@um.edu.my

ADJUNCT PROFESSOR



YBhg. Tan Sri Dato' (Dr.) Abdul Rahim Abd Rahman

Executive Chairman
Rahim & Co Chartered Surveyors Sdn Bhd
B.Sc (London)
Registered Valuer, Estate Agent & Property Manager
FRISM, FRICS

EXTERNAL EXAMINER



Professor Dr. Steven Rowley

Professor of Property in the School of Economics, Finance and Property
Curtin Business School, Curtin University, Perth, Australia
PhD. (Northumbria), BSc(De Montfort)
E-mail: s.rowley@curtin.edu.au

PROGRAMME STRUCTURE: BACHELOR OF REAL ESTATE

CATEGORY	NO	CODE	SUBJECT	YEAR I		YEAR II		YEAR III			YEAR IV	TOTAL CREDIT	PRE-REQUISITE	
				S1	S2	S1	S2	S1	S2	SPECIAL SEM	S1			
UNIVERSITY COURSES	1	GIG1012/ **GLT1017	Philosophy and Current Issues / ** Basic Malay Language	2								12		
	2	GLTxxx	English 1	2										
	3	GLTxxx	English 2		2									
	4	GIG1013	Appreciation of Ethics and Civilizations		2									
	5	GIG1003	Basic Entrepreneurship Enculturation			2								
	6	GXXxxxx	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						

CATEGORY	NO	CODE	SUBJECT	YEAR I		YEAR II		YEAR III			YEAR IV	TOTAL CREDIT	PRE-REQUISITE	
				S1	S2	S1	S2	S1	S2	SPECIAL SEM	S1			
	27	BIE3013	Real Estate and Community					2						
	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	
UNIVERSITY ELECTIVE COURSES	35		Student Holistic Empowerment (S.H.E) I	2								14		
	36		Student Holistic Empowerment (S.H.E) II		2									
	37		Student Holistic Empowerment (S.H.E) III				2							
	38		Student Holistic Empowerment (S.H.E) IV						2					
PROGRAMME ELECTIVE COURSE**	39		Program Elective Course I			3								
	40		Program Elective Course II					3						
TOTAL SUBJECT BREAKDOWN			CREDITS	19	19	18	18	17	19	4	10	124		
			SUBJECTS	7	7	6	6	6	6	1	1	40		

Note:

**** Program Elective Course - 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

COMPONENTS	YEAR 1 (Bachelor of Real Estate)						TOTAL CREDIT	
	SEMESTER 1			SEMESTER 2				
	COURSE CODE	COURSE TITLE	CREDIT	COURSE CODE	COURSE TITLE	CREDIT		
University Courses	GIG1012/ **GLT1017	Philosophy and Current Issues / ** Basic Malay Language	2	GIG1013	Appreciation of Ethics and Civilizations	2	8	
	GLTxxxx	English 1	2	GLTxxxx	English 2	2		
Program Core Courses	BIE1007	Introduction to Real Estate Valuations	4	BIE1011	Market Approach and Cost Approach in Real Estate Valuation	4	26	
	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		
University Elective Courses		Student Holistic Empowerment (S.H.E) I	2		Student Holistic Empowerment (S.H.E) II	2	4	
Total Credit			19	Total Credit			19	38

* 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)						TOTAL CREDIT	
	SEMESTER 1			SEMESTER 2				
	COURSE CODE	COURSE TITLE	CREDIT	COURSE CODE	COURSE TITLE	CREDIT		
Compulsory University Courses	GIG1003	Basic Entrepreneurship Enculturation	2	GXXxxxx	Co-Curriculum	2	4	
Program Core Courses	BIE2013	Income Approach of Real Estate Valuation I	4	BIE2017	Income Approach of Real Estate Valuation II	4	27	
	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		
Program Elective Courses		Program Elective Course I	3				3	
University Elective Courses					Student Holistic Empowerment (S.H.E) III	2	2	
Total Credit			18	Total Credit			18	36

COMPONENTS	YEAR 3 (Bachelor of Real Estate)						TOTAL CREDIT	
	SEMESTER 1			SEMESTER 2				
	COURSE CODE	COURSE TITLE	CREDIT	COURSE CODE	COURSE TITLE	CREDIT		
Program Core Courses	BIE3009	Property Taxation dan Land Acquisition	3	BIE3014	Real Estate Finance Analysis	3	31	
	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		
Program Elective Courses	BIExxxx	Program Elective Course II	3				3	
University Elective Courses					Student Holistic Empowerment (S.H.E) IV	2	2	
Total Credit			17	Total Credit			19	36

COMPONENTS	YEAR 4 (Bachelor of Real Estate)			TOTAL CREDIT
	SEMESTER 1			
	COURSE CODE	COURSE TITLE	CREDIT	
Program Core Courses	2	Industrial Training	10	10
Total Credit			10	10

OVERALL TOTAL CREDIT: 124

PROGRAMME CORE COURSES

BIE1007
4 credits

INTRODUCTION TO REAL ESTATE VALUATION

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:

7. Identify the fundamentals of real estate;
8. Describe the process of real estate valuation; and
9. Perform calculations using valuation mathematics.

Assessment:

Continuous Assessment	50%
Final Examination	50%

BIE1008
3 credits

INTRODUCTION TO LAW

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) emphasising on capacity, consideration, intention to create legal relations 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; and
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. Microeconomics focuses on parts of the economy which are individuals, firms, and industries. Macroeconomics 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; and
3. Describe economic situations 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; and
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; and
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; and
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; and
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; and
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; and
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 the 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; and
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; and
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 defects, their causes and remedies for buildings;
2. Describe the building maintenance and building services systems; and
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 the 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; and
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 the 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; and
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; and
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; and
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 the knowledge in facilities management (FM), its concepts, scope, important functions and classification of tasks. It also exposes students to the 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; and
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 visualising data;
2. Apply the basics of inferential statistics by making valid generalisations from sample data; and
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; and
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; and
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; and
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; and
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; and
3. Adopt suitable methodology for the proposed study.

Assessment:

Continuous Assessment	100%
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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 solutions 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; and
3. Propose real estate-based solutions to community problems.

Assessment:

Continuous Assessment	100%
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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; and
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; and
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 the real estate development process. It also exposes the students to the development cycle, structure and agencies in the development and redevelopment of urban areas. 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; and
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; and
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:

3. Write a literature review of the study;
4. Apply the appropriate research design to the study; and
5. Report the research findings related to real estate.

Assessment:

Continuous Assessment	100%
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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; and
3. Prepare an integrated project report.

Assessment:

Continuous Assessment	100%
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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; and
3. Display interpersonal and communication skills during the.

Assessment:

Continuous Assessment	100%
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CAMPUS MAP



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**UNIVERSITI
MALAYA**

Faculty of Built Environment

**Faculty of Built Environment
Universiti Malaya**

50603 Kuala Lumpur

Phone : +603 7967 7955

Fax : +603 7967 5713

<https://fbe.um.edu.my/>