

Universiti Putra Malaysia

(1)Activities of exchange programme

- No specific regular event being conducted, however the University will try to conduct joint event with other international Universities through “Mobility Program’ or Joint Studio Program.

a. Mobility program is a program we allow students from other universities to joint the Arch program for 2 weeks minimum but maximum one semester.

So far we have collaborated with students from Germany, Finland, France, Thailand, China.

UPM currently have not sent any one out due to the financial constraint and b. “Joint Studio”

Conducted the same project with University Islam Indonesia, Malang where the students spent 2 weeks in Malaysia and 2 weeks in Indonesia in doing the project.

c. Exchange program

Currently working with the University of Plymouth and University of Strathclyde on MoU for the Exchange program especially on the Master of Architecture Program.

(2) Information On The List Of Area Of Specialisation.

Areas Of Specialisation

- a. Community Architecture Led By C.A.R.T (Community Architecture Research Team)
- b. Conservation, Heritage And Islamic Architecture Led By W.A.R.I.S (Heritage And Conservation / Warisan Alam Budaya Dan Rekabentuk Islam)
- c. Sustainable Architecture Led By Envides (Sustainable Architecture/ Environmental Design Research Group)
- d. Architectural Education Led By Architecture Education Research Group
- e. Building Technology And Informatics
- f. Architectural Visual And Theory
- g. Tropical Urban Design

(3) Detailed and background of the core courses syllabus/curriculum for architectural Programmes

BACHELOR OF SCIENCE IN ARCHITECTURE- PART 1	106 CREDITS
MASTER OF ARCHITECTURE – PART 2	59 CREDITS
TOTAL	165 CREDITS

Part 1 – Bachelor of Science in Architecture

Component of Studies	Credit	%
Design and Creativity	45	42
Theory and Culture	18	17
Technology and Environment	22	21
Research and Development	6	6
Professional Ethics and Management	15	14
Total	106	100

Part 2 – Master in Architecture

CLUSTER OF STUDIES

DESIGN CLUSTER		
ARC5001	Advanced Architecture Studio 1	6(0+6)
ARC5002	Advanced Architecture Studio 2	6(0+6)
ARC5003	Architecture Thesis Studio 1	6(0+6)
ARC5004	Architecture Thesis Studio 2	8(0+8)
Total credit for Design cluster		26
TECHNOLOGY AND ENVIRONMENT CLUSTER		
ARC5501	Advanced Building Technology	3(3+0)
ARC5630	Sustainable Development Issues	3(3+0)
ARC5502	Energy and Architecture	3(3+0)
Total credit for Technology and Environment Cluster		9
CULTURAL CONTEXT CLUSTER		
ARC5720	Theory of Urban Design	3(3+0)
ARC5710	Theory of Contemporary Design	3(3+0)
Total credit for Cultural Context Cluster		6
COMMUNICATION CLUSTER		
ARC5910	Research Methodology	3(1+2)
ARC5911	Architectural Dissertation 1	3(0+3)
ARC5912	Architectural Dissertation 2	3(0+3)
Total credit for Communication Cluster		9
PRACTICE AND MANAGEMENT CLUSTER		
ARC5801	Architecture Practice and Management 1	3(3+0)

ARC5802	Architecture Practice and Management 2	3(3+0)
ARC5803	Architecture Practice and Management 3	3(3+0)
Total credit for Practice and Management Cluster		9
TOTAL		59

Design and Creativity		
Course Code	Course name	Credit
ARC 3000	Architectural Design Studio 1	5(0+5)
ARC 3001	Architectural Design Studio 2	5(0+5)
ARC 3013	Architectural Studio 3	6(0+6)
ARC 3014	Architectural Studio 4	6(0+6)
ARC 3015	Architectural Studio 5	6(0+6)
ARC 3016	Architectural Studio 6	6(0+6)
ARC 3103	Architectural Graphics	3(1+2)
ARC 3112	Computer Aided Design	2(1+1)
ARC 3110	Architectural Communication	2(1+1)
ARC 3111	Technical Drawing	2(1+1)
*ARC 4113	Working Drawing	2(1+1)
Total Credit		45
Percentage		42%
Theory and Culture		
Course Code	Course Name	Credit
ARC 3200	History and Theory of Architecture 1	2(2+0)
ARC 3201	History and Theory of Architecture 2	2(2+0)
ARC 3202	History of South East Asia Architecture	2(2+0)
ARC 3220	Islamic Architecture History	3(3+0)
ARC 4610	Socio-cultural Behaviour 1	3(3+0)
ARC 4702	Theory of Urban Planning	3(3+0)
ARC 3811	Professional Practice	3(3+0)
Total Credit		18
Percentage		17%

Technology and Environment		
Course Code	Course Name	Credit
ARC 3311	Building Materials and Construction1	2(2+0)
ARC 3312	Building Materials and Construction2	2(2+0)
ARC 3313	Building Materials and Construction3	2(2+0)
ARC 3400	Structure 1	2(2+0)
ARC 3412	Building Structure 2	2(2+0)
ARC 3413	Building Structure 3	2(2+0)
ARC 3500	Building Services 1	2(2+0)
ARC 3512	Building Services System 2	2(2+0)
ARC 3513	Building Services System 3	2(2+0)
ARC 3600	Environmental Physics 1	2(2+0)
ARC 3601	Environmental Physics 2	2(2+0)
Total Credit		22
Percentage		21%
Research and Development		
Course Code	Course Name	Credit
*ARC 4612	Environmental Behavioral Studies	2(1+1)
ARC 4903	Design Integration	2(0+2)
*ARC 4902	Topical Studies	2(0+2)
Total Credit		6
Percentage		6%
Professional Ethics and Management		
Course Code	Course Name	Credit
ARC 4901	Industrial Training	12(0+12)
MGM 3180	Basic Entrepreneurship	3(2+1)
Total Credit		15
Percentage		14%

6.1.1 B. Science In Architecture (Design)

Course	:	ARCHITECTURAL DESIGN STUDIO 1
Code	:	ARC 3000
Credit	:	5(0+5)
Students Learning Time	:	200
Pre-Requisite	:	None
Synopsis	:	The course covers fundamental design elements and principles of two and three dimensional objects as well as basic issues related to sustainability.
Course Name : ARCHITECTURAL DESIGN STUDIO 2		
Course Code	:	ARC 3001
Credit	:	5(0+5)
Students Learning Hours	:	200
Prerequisites	:	ARC 3000
Synopsis	:	This course covers the application of basic design process in architecture, ergonomic studies and spatial arrangements of single interior and exterior spaces with consideration of sun-shading, daylighting and natural ventilation aspects
Course Name : ARCHITECTURAL STUDIO 3		
Course Code	:	ARC 3013
Credit	:	6 (0+6)
Students Learning Time	:	240
Prerequisites	:	ARC 3001
Synopsis	:	This course covers the design process of a two storey residential building and a semi-public small-scaled building as well as the consideration of basic structure, building materials, construction, solar shading and natural ventilation.
Course Name : ARCHITECTURAL STUDIO 4		
Course Code	:	ARC 3014
Credit	:	6 (0+6)
Students Learning Time	:	240
Prerequisites	:	ARC 3013
SYNOPSIS	:	This course covers designing of buildings with single use, with multiple spaces which incorporate building technologies, site planning and planning for formal and informal public spaces, as well as environmental factors such as passive design strategies, daylighting design and noise control.

Course Name : **ARCHITECTURAL STUDIO 5**

Course Code : **ARC 3015**

Credit : **6 (0+6)**

Students Learning Time : **250**

Prerequisites : **ARC 3014**

Synopsis

This course covers the application of environmental issues, which influence the building design process with emphasis on passive design strategy. The project site will be in urban and suburban context and the allowable building height is from three to five storeys, total building gross floor area not exceeding 2500m².

Course Name : **ARCHITECTURAL STUDIO 6**

Course Code : **ARC 3016**

Credit : **6 (0+6)**

Students Learning Time : **240**

Prerequisites : **ARC 3015, ARC 3313, ARC 3513, ARC 3601**

Synopsis

This course covers the design of a building which integrates energy-efficient design strategy within a social-cultural context and disabled friendly design which confirm with building codes related to building technology through a comprehensive design project.

6.1.2 B.Science in Architecture (Technology And Environment)

Course Name	:	MATERIAL AND BUILDING CONSTRUCTION 1
Course Code	:	ARC 3311
Credit	:	2 (2+0)
Student	:	80
Learning Time	:	
Prerequisite	:	-
Synopsis	:	This course covers aspects in building system including structures, building envelopes, materials and methods of construction with emphasise on the wood based material.
Course Name	:	MATERIAL AND BUILDING CONSTRUCTION 2
Course Code	:	ARC 3312
Credit	:	2 (2+0)
Student	:	80
Learning Time	:	
Prerequisite	:	-
Synopsis	:	This course covers aspects in building system including structures, building envelopes, materials and methods of construction with emphasis on bricks and concrete-based materials.
Course Name	:	MATERIAL AND BUILDING CONSTRUCTION 3
Course Code	:	ARC 3313
Credit	:	2 (2+0)
Student	:	80
Learning Time	:	
Prerequisite	:	-
Synopsis	:	This course covers various new construction materials and construction methods from conventional system to the latest high technology integrated building system. Emphasis is given to new materials including steel, glass and fabrics.
Course Name	:	STRUCTURE 1
Course Code	:	ARC 3400
Credit	:	2(2+0)
Student	:	80
Learning Time	:	
Prerequisite	:	Nil
Synopsis	:	This course covers the fundamental principles of structures, structure systems, types of material behaviour and structural forms used in building design.
Course Name	:	STRUCTURAL CONSTRUCTION 2
Course Code	:	ARC 3412
Credit	:	2 (2+0)
Student	:	80
Learning Time	:	

Prerequisite : **ARC 3400**
Synopsis : This course includes the types of load, analysis of truss structure and the types of building foundation.

Course Name : **STRUCTURAL CONSTRUCTION 3**
Course Code : **ARC 3413**
Credit : **2 (2+0)**
Student : **80**
Learning Time
Prerequisite : **ARC 3412**
Synopsis : This course covers analysis of structural behavior and sizing calculation of structure for reinforced concrete and steel used for a construction.

Course Name : **BUILDING SERVICES 1**
Course Code : **ARC 3500**
Credit : **2 (2+0)**
Student : **80**
Learning Time
Prerequisite : -
Synopsis : This course covers basic concepts of water supply, drainage, sanitation, sewerage and disposal system in designing a building. Compliance with Uniform Building By-Law (UBBL) is emphasized.

Course Name : **BUILDING SERVICES SYSTEM 2**
Course Code : **ARC 3512**
Credit : **2 (2+0)**
Student : **80**
Learning Time
Prerequisite : -
Synopsis : This course covers basic concepts of electrical supply system, telecommunication, air conditioning and ventilation systems in designing a building. Compliance with Uniform Building By-Law (UBBL) is emphasized.

Course Name : **BUILDING SERVICES SYSTEM 3**
Course Code : **ARC 3513**
Credit : **2 (2+0)**
Student : **80**
Learning Time
Prerequisite : -
Synopsis : This course covers basic concepts in vertical and horizontal transportation systems and fire fighting system in designing a building. Compliance with Uniform Building By-Law (UBBL) is emphasized.

Course Name	:	ENVIRONMENTAL PHYSICS 1
Course Code	:	ARC 3600
Credit	:	2(2+0)
Student	:	80
Learning Time	:	
Prerequisite	:	-
Synopsis	:	This course covers the criteria of thermal comfort, sun shading, air ventilation system and indoor air quality. Emphasis will be given to passive environmental design in designing building.

Course Name	:	ENVIRONMENTAL PHYSICS 2
Course Code	:	ARC 3601
Credit	:	2(2+0)
Student	:	80
Learning Time	:	
Prerequisite	:	ARC 3600
Synopsis	:	This course covers the exposure to basic theories of day lighting, artificial lighting and acoustic design. Emphasis is given to day lighting application in building design and energy saving.

6.1.3 B.Science in Architecture (Cultural Context)

Course Name	: HISTORY & THEORY OF ARCHITECTURE 1
Course Code	: ARC 3200
Credit	: 2(2+0)
Student	: 80
Learning Time	
Prerequisite	: -
Synopsis	This course covers architectural history and expression in the Middle East, Western Europe and Asia from 3200BC to early 19 th century.

Course Name	: HISTORY & THEORY OF ARCHITECTURE 2
Course Code	: ARC 3201
Credit	: 2(2+0)
Student	: 80
Learning Time	
Prerequisite	: -
Synopsis	This course covers the history and theory of western architecture which traces the key movements, architects and famous artists from middle 19 th century to the middle 20 th century that laid the foundations of modern architecture

Course Name	: HISTORY OF SOUTHEAST-ASIA ARCHITECTURE
Course Code	: ARC 3202
Credit	: 2 (2+0)
Student	: 80
Learning Time	
Prerequisite	: -
Synopsis	This course covers the historical elements of Southeast Asia architecture, the factors that influence the characteristics of local architecture such as religion and belief, lifestyles, environment and building technology available in Southeast Asia. It also covers the concepts and characteristics of vernacular and indigenous architecture in Southeast Asia.

Course Name	: SOCIO-CULTURAL ENVIRONMENT 1
Course Code	: ARC 4610
Credit	: 3 (3+0)
Student	: 120
Learning Time	
Prerequisite	: -
Synopsis	This course covers the need for barrier-free design for residential and public buildings based on relevant guidelines and regulations.

Course Name	: THEORY OF URBAN PLANNING
Course Code	: ARC 4702
Credit	: 3 (3+0)
Student	: 120
Learning Time	
Prerequisite	: -

Synopsis This course covers the evolution, theories, aspects and process of urban planning. It also includes the impact of planning on human beings, townscape and environment as well as planning and sustainable development issues.

6.1.4 B. Science in Architecture (Communication)

Course Name	: ARCHITECTURAL GRAPHIC
Course Code	: ARC3103
Credit	: 3(1+2)
Student Learning Time	: 120
Prerequisites	: Nil
Synopsis	: This course covers the basic knowledge of architectural drawing. It emphasizes on the drawing skills and presentation of building forms, landscapes, and architectural objects. The drawings are produced using various media and graphic techniques.

Course Name	: ARCHITECTURAL COMMUNICATIONS
Course Code	: ARC3110
Credit Hours	: 2(1+1)
Total Learning Time	: 80
Prerequisite	: None
Synopsis	: This course covers the presentation techniques in architectural projects through verbal and visual communications. It emphasizes on the presentation techniques either individually or in groups. The presentation is conducted with the aid of graphics, models and audio-visual tools.

Course Name	: TECHNICAL DRAWING
Course Code	: ARC3111
Credit	: 2(1+1)
Students Learning Time	: 80
Prerequisite	: Nil
Synopsis	: This course covers knowledge and skills in preparation of two and three-dimensional technical drawings.

Course Name	: COMPUTER AIDED DESIGN (CAD) APPLICATIONS
Course Code	: ARC3112
Credit	: 2 (1+1)
Student Learning Time	: 80

Prerequisite : Nil

SYNOPSIS : This course covers several common and latest computer applications used in architecture field for digital presentation.

Course Name : **CONSTRUCTION DRAWING**

Course Ode : **ARC4113**

Credit : **2 (0+2)**

Students Learning : **80**

Time

Prerequisite : **Nil**

Synopsis : This course covers the skills in preparing construction working drawings including production of detail drawings and measured drawings according to specific formats

6.1.5 B. Science in Architecture (Management Practice & Law)

Course Name : **ARCHITECTURAL PRACTICE**

Course Code : **ARC 3811**

Credit : **3 (3+0)**

Student : **120**

Learning Time

Prerequisite : -

Synopsis : This course covers the function, role, responsibilities and ethics of a professional architect based on the Architects Act 1967 which covers the relationship between professional architects with other related professionals in the construction industry and business operation for architectural firm.

Course Name : **INDUSTRIAL TRAINING**

Course Code : **ARC 4901**

Credit : **12 (0+12)**

Student : **485**

Learning Time

Prerequisite : **ARC 3014**

Synopsis This course provides exposure on the scope of work and responsibility of an assistant architect by placing them in government agencies or private practice. Students will be trained and guided by the supervisors at the place of training and will be assessed by the representative from Department of Architecture.

Course Name : **INTEGRATED DESIGN**

Course Code : **ARC 4903**

Credit : **2 (0+2)**

Student : **80**

Learning Time

Prerequisite : **ARC 3015**
Synopsis This course covers the integration of architectural design, structure and building services. Each student is required to prepare and submit a comprehensive report of their studio's final project.

Course Name : **FUNDAMENTAL OF INTREPRENEURSHIP**
Course Code : **MGM 3180**
Credit : **3 (2+1)**
Student : **120**
Learning Time
Prerequisite : -
Synopsis This course includes exposure to entrepreneurial knowledge that will cover techniques to carry out entrepreneurial activities and basic management skills required in a business undertaking.

Universiti Putra Malaysia

6.2 Master in Architecture

6.2.1 M. Architecture (Studio Component)

Course Name	:	Advanced Architecture Studio 1
Course Code	:	ARC5001
Credit	:	6 (0+6)
Student Learning Time	:	241
Prerequisite	:	None
Synopsis	:	This course covers suburban and city centre development in building design. Sustainable issues, socio-culture, economy and integrated building technology in suburban and urban area will be emphasized.

Course Name	:	Advanced Architecture Studio 2
Course Code	:	ARC5002
Credit	:	6 (0+6)
Student Learning Time	:	241
Prerequisite	:	ARC5001
Synopsis	:	This course offers a comprehensive insight towards urban development issues. The project and site selections will be based on local context with suitable complexity of the development. Emphasis will be given on the environment, sosio-cultural, economy, suitable land use and human comfort issues in buildings

Course Name	: Architecture Thesis Studio 1
Course Code	: ARC5003
Credit	: 6 (0+6)
Student Learning Time	: 241
Prerequisite	: Nil
Synopsis	: This course is a design thesis proposal based on the current development issues. The selection of project and site are also based on the real development issues. The design thesis proposal emphasizeS on the sustainable design aspects.

Course Name	: Architecture Thesis Studio 2
Course Code	: ARC5004
Credit	: 8 (0+8)
Student Learning Time	: 321
Prerequisite	: ARC5003
Synopsis	: This course is a continuation of Architecture Thesis Studio 1 which requires the application of regional and global ideas in producing sustainable development that can be nurtured to suit the changing trend of the global market. Selection of project and site (urban or rural context) is by the student, based on the complexity that has been set.

6.2.2 M. Architecture (Technology And Environment)

Course Name	: Sustainable Development Issues
Course Code	: ARC5630
Credit	: 3 (3+0)
Student Learning Time	: 120
Prerequisite	: Nil
Synopsis	: The course focuses on enhancing the awareness on the impacts of built environment on the natural environment, society and local economy. It also gives an overview of the multi-dimensional concept of sustainable development as well as principles and strategies for achieving sustainable built environment. Various theories, opinions and examples of sustainable architecture found in the local and global communities are also discussed so they can be applied in studio projects.

Course Title	: Energy and Architecture
Course Code	: ARC5502
Credit	: 3 (3+0)
Student Learning Time	: 120
Prerequisite	:
Synopsis	: This course emphasizes on the importance of energy efficiency and the need to switch to renewable sources of energy in the context of built environment in general, and architecture in particular. It emphasises on the design strategies (passive and active) of energy efficient buildings, and renewable technologies including photovoltaics, solar thermal, wind power, hydropower, biomass energy, fuel cells and etc.

Course Title	: Advanced Building Technology
Course Code	: ARC5501
Credit	: 3 (3+0)
Student Learning Time	: 120
Prerequisite	:
Synopsis	: This course covers concepts and sustainable techniques in advanced building technology that being used for inovative buildings, high rise buildings and spacious internal area. Various topics on engineering systems and building managements will be discussed in detai

Course Name	: Seminar on Design Integration
Course Code	: RSB5620
Credit	: 3(0+3)
Student Learning Time	: 120
Prerequisite	: None
Synopsis	: This course covers on the analysis and creative explanation on the theories, applications, processes and alternative materials towards the development of a sustainable environment.

6.2.3 M. Architecture (Cultural Context)

Course Name	: Theory of Urban Design
Course Code	: ARC5720
Credit	: 3 (3+0)
Student Learning Time	: 78
Prerequisite	: Nil
Synopsis	: This course covers critical study on urban design history, theory and idea as well as its physical manifestation in relation to community growth and urban development. The factors that influence urban development and current approach in urban planning and design will be analyzed and discussed

Course name	: Theory of Contemporary Design
Course Code	: ARC5710
Credit	: 3 (3+0)
Student Learning Time	: 120
Pre-requisite	: None
Course name	: Theory of Contemporary Design
Synopsis	: This course covers contemporary design theories and interpretation through observation, articulation, and appreciation skills. It provides opportunities to develop understanding and generate critical theory reasoning constructively.

Course Name	: Architectural Innovation And Exploration
Course Code	: ARC5701
Credit	: 3 (1+2)
Student Learning Time	: 118
Prerequisite	: None
Synopsis	: The course covers the latest architectural exploration and innovation through research, academic trip and involvement in architectural design competition. Students are required to produce an exhibition and architectural exploration travelogue and participate in an architectural competition.

Course Name	:	Housing and Town Development Planning
Course Code	:	ARC5702
Credit	:	3(3+0)
Student Learning Time	:	120
Prerequisite	:	None
Synopsis	:	The course focuses on raising the awareness of issues related to housing and human settlement also promote creative and critical discussion based on theories and analysed case studies.

Course Name	:	Landscape Architecture Philosophy And Theory
Course Code	:	LAR5201
Credit	:	3(3+0)
Student Learning Time	:	120 hours
Prerequisite	:	None
Synopsis	:	This course discusses on the theory and philosophy of landscape architecture and its influence on the development of the prior and current landscape so that it can be implemented in the design project.

Course Name	:	Urban And Regional Planning
Course Code	:	LAR5601
Credit	:	3(3+0)
Student Learning Time	:	122
Prerequisite	:	None
Synopsis	:	This course covers philosophies, theories, methods and processes of urban and regional planning, as well as urban design and organizations involved. Planning and design analysis based on philosophy and theory as well as laws will be carried out. Current planning and urban design practice emphasized

6.2.4 M. Architecture (Communication)

Course name	:	Research Methodology
Course Code	:	ARC5910
Credit	:	3 (2+1)
Student Learning Time	:	119
Pre-requisite	:	None
Synopsis	:	This course covers the approach and theoretical framework to problems and issues related to an architectural design project within the context of sustainable built environment. Students are required to analyse and summarise the information, based on research methods that have been learned.

Course name	:	Architecture Dissertation 1
Course Code	:	ARC5911
Credit	:	3 (0+3)
Student Learning Time	:	121
Pre-requisite	:	ARC5910
Synopsis	:	This course covers production of preliminary dissertation report which relates to Comprehensive Design Studio 1 project. The preliminary dissertation report focuses on the proposal, research program strategy and data collection.

Course name	:	Architecture Dissertation 2
Course Code	:	ARC5912
Credit	:	3 (0+3)
Student Learning Time	:	122
Pre-requisite	:	ARC5911
Synopsis	:	This course covers the preparation of final dissertation relates to Architecture Studio Thesis project. Special studies from various selected architecture aspects will be focused and detailed

6.2.5 M. Architecture (Management Practice And Law)

Course Name	: Architecture Practise and Management 1
Course Code	: ARC5801
Credit	: 3 (3+0)
Student Learning Time	: 78
Prerequisite	: Nil
Synopsis	: This course covers aspects of role and responsibility of an architect, Code of Ethics in project implementation in accordance to the Architects Act and related laws.

Course Name	: Architecture Practise and Management 2
Course Code	: ARC5802
Credit	: 3 (3+0)
Student Learning Time	: 120
Prerequisite	: ARC5801
Synopsis	: This course covers on architect's role in the Contract Administration and Implementation process; the practical applications of project development procedures in every stage (preparation of contract documents, methods of delivery and tender procedures and site management.

Course Name	: Architecture Practise and Management 3
Course Code	: ARC5803
Credit	: 3 (3+0)
Student Learning Time	: 120
Prerequisite	: ARC5802
Synopsis	: The course focuses on students understanding of various management styles and theories with other required skills related to the practice of architecture to prepare them to be more competitive in the architectural profession