

# FACULTY OF BUILT ENVIRONMENT

## List of Courses Offered for University of Malaya Student Exchange (UMSEP) for the 2013/2014 Academic Session

### BACHELOR OF SCIENCE IN ARCHITECTURE:

No	Course Code	Topic	Credit	Courses Offered Please tick (√) where applicable			Course Description	Other Description
				Semester I	Semester II	Special Semester		
1.	BAEB1107	Architectural Communications	2	√			This course covers the basic skills needed to instil confidence in the students to use graphics as a means of conveying information in their career as designers and / or technical assistants. In general the students will be exposed to the various graphic techniques available to represent architecture as well the underlying theories in the forms of verbal, graphic and physical representation.	
2.	BAEB1163	Architectural Computer Graphics	3		√		This course enables the students to see the sequence and process involved in preparation of digital drawings and models from beginning to end. This includes the skills and knowledge needed to effectively handle data and to present the end results professionally.	
3.	BAEB2128	Building Engineering I	2		√		This course is an introduction to: <ul style="list-style-type: none"> <li>The need for building services in modern</li> </ul>	

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							<p>living and the relevant regulations.</p> <ul style="list-style-type: none"> <li>• Water distribution systems in terms of design requirements; hot water system. Drainage systems:</li> <li>• The design of rain water collection and drainage systems. Plumbing systems. Integrated plumbing systems.</li> <li>• Underground drainage and disposal system. Above ground drainage. Sewerage systems. Septic tank.</li> <li>• Refuse disposal: various systems.</li> <li>• Electrical supply and services in relation to the supply and distribution in domestic buildings.</li> </ul>	
4.	BAEB2127	Building Structure I	2	√			<p>This course is an introduction to structural materials that include timber, steel and reinforced concrete construction. The structural system learnt includes load bearing, post and beam, arches and frames. Development of structural systems and forms will also be highlighted. This course also introduces elastic theory; stress and strain; trusses; methods of joints and sections. Precedent studies and exercises as well as assignments on structural models and analysis will be done in class.</p>	

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5.	BAEB1114	Architectural History I	2	√			<p>This course covers:</p> <ul style="list-style-type: none"> <li>• Brief overviews on the legacy of the ancient civilizations such as Egypt, Mesopotamia, Mohenjo-Daro and Harappa, Maya, Aztec and Inca.</li> <li>• Discussion on vernacular architecture heritage covering: <ul style="list-style-type: none"> <li>- Austronesian World</li> <li>- Malay Houses</li> <li>- Siamese traditional architecture</li> <li>- Indian traditional architecture</li> <li>- Chinese traditional architecture</li> <li>- Japanese traditional architecture</li> </ul> </li> <li>• Introduction to architecture of the Islamic World.</li> <li>• Discussion about foreign influences on the local architecture in Malaysia.</li> </ul>	
6.	BAEB1102	Design Theory	2	√			<p>The course focuses on the knowledge and skill of basic design critique. It will be based on a set of basic design principles and theories including critical theory, knowledge and practice of visual acuity and literacy, as well as studies on architectural typology. The course also introduces the students to the use of architectural precedents to illustrate and thus</p>	

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							analyse design theories, concepts, ideas and principles of design.	
7.	BAEB2102	Architectural Theory	2	√			This course is strongly connected with History of Architecture II where History of Western Architecture was introduced. The architectural movements, individuals and groups of individuals which had influenced the development of architecture from the Modern Movement at the turn of the 19th and 20th centuries until current developments in architectural thought and philosophies, will be focused upon.	
8.	BAEB2116	Sustainability Issues in the Built Environment	2		√		<p>The course gives an introduction to the man-climate-built environment cycle, by analysing and providing leads to the design and operation of a sustainable built environment based on the following:</p> <ul style="list-style-type: none"> <li>• Problems associated with energy usages in the built environment,</li> <li>• Energy being used and forecasts for the future,</li> <li>• Role of energy conservation in buildings,</li> <li>• Potential for renewable energy systems to meet energy needs,</li> <li>• Air and water pollution: problems and</li> </ul>	

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							remedial measures.	
9.	BAEB3136	Planning Studies	2	√			<p>This subject consists of two components;</p> <ul style="list-style-type: none"> <li>• The development and historical study on town and city planning, including concepts and principles of the various aspects of town and city planning;</li> <li>• Urban development legislation and regulative functions in Malaysia and elsewhere.</li> </ul>	
10.	BAEB3152	Professional Studies	3		√		<p>The course intends to expose students on professional practice and building construction site administration. The course also introduces concept and basic on project management, feasibility studies, project control organization structure and team management. Architects works and responsibility and other consultants' scope of works shall be introduced and explained.</p>	

## BACHELOR OF ARCHITECTURE

No	Course Code	Topic	Pre-requisite	Credit	Courses Offered Please tick (√) where applicable			Course Description	Other Description
					Semester I	Semester II	Special Semester		
1.	BAEE4152	Professional Practice I		2		√		<p>This course gives a broad understanding of the architect as a profession and its role in society and to give an overview of the various Acts and Regulations required in professional practice.</p> <p>The Professional Practice:</p> <ul style="list-style-type: none"> <li>• Concept of ethics, moral and religious obligation.</li> <li>• Principles of professionalism, competency, responsibilities and due diligence.</li> <li>• The architect's roles and responsibilities in society and the building team.</li> <li>• Development process</li> <li>• The type of practice and doing the business of practice.</li> <li>• Alternative forms of practice.</li> <li>• The law and regulations that govern the profession and the practice.</li> <li>• The scope of architectural services and the relevant terms of appointment</li> <li>• Structure of industry – contribution of industry to National Income</li> <li>• The contracting industry and the statutory authorities</li> <li>• The scope and changing contribution of the team members, management and control of conflicting priorities.</li> </ul> <p>Architects and the law: Statutory controls and their application in</p>	

No	Course Code	Topic	Pre-requisite	Credit	Courses Offered Please tick (√) where applicable			Course Description	Other Description
					Semester I	Semester II	Special Semester		
								practice; Land and property legislation; Planning control – legislation on town and country planning and administration; Building control – Building Legislation and Regulation; Fire precautions provision.	
2.	BAEE4128	Building Technology I		3	√			A series of lectures and tutorials/seminars on outstanding buildings, highlighting structural design, construction and services aspects of the buildings will be conducted. Various aspects of design and integration are emphasised as well as the provision of appropriate technology available and the ability to solve specific design problems.	
3.	BAEE4102	Theory and Philosophy		3	√			The course input would encompass the key movements <ul style="list-style-type: none"> <li>• Modernism <ul style="list-style-type: none"> <li>- Phenomenology,</li> <li>- Structuralism,</li> <li>- Rationalism.</li> </ul> </li> <li>• Postmodernism <ul style="list-style-type: none"> <li>- Post-structuralism,</li> </ul> </li> <li>• Deconstruction.</li> </ul>	

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4.	BAEE4130	Landscape Architecture		2	√			<p>This course exposes students to the basic knowledge of sustainable urban landscape (identification of form, fabric and structure of urban elements) with focus on the study at macro scale, i.e. city level and micro scale i.e. urban spaces. Among the highlights of the course is to expose ecology and its sub-discipline as a 'key subject' in planning and designing built environment. The following specific topics will be addressed:-</p> <p>Part A : Introduction of Course content  Part B : City; past, present and future  Part C : Ecology and related fields  Part D : Landscape and Urban Ecosystem  Part E : Urban Space and Civic Culture  Part F : Urban Planning</p>	



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5.	BAEE4136	Planning and Urban Design		3	√			<p>The course focus on a problem-based workshop learning method where in groups, students read seminal text and theories on urban design and formulate strategies on how to solve the problems in real-life urban sites in Kuala Lumpur and Klang Valley.</p> <p>This course consists of a series introductory lecture on concepts and principles of urban landscape, town planning and urban design.</p> <p>Planning :</p> <ol style="list-style-type: none"> <li>1. The Garden City movement, Le Corbusier's Ville Radieuse and the emergence of modern town planning.</li> <li>2. Radburn lay-out, neighbourhood units, open space, reservational areas.</li> <li>3. Overview of planning of designed cities:</li> <li>4. New Delhi, Canberra, Brasília, Putrajaya and other Malaysian cities.</li> </ol> <p>Urban Design:</p> <ol style="list-style-type: none"> <li>1. Various theories of urban design in the twentieth century such as Finding Lost Space by Trancik; A New Theory of Urban Design by Alexander and others; A Theory of Good City Form by Kevin Lynch; Concise Townscape by Gordon Cullen</li> <li>2. Theories by Camillo Sitte, Louis Mumford, Aldo Rossi, Leon and Rob Krier.</li> <li>3. Landscape in the urban environment.</li> </ol>	

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6.	BAEE4116	Sustainable Design		2	√			<p>Synopsis of Course Contents The course provides student with a wider knowledge on issues beyond the conventional architectural practice and strengthen their knowledge in sustainable design. It gives students the opportunities to work with the research staff and postgraduate students in the Department and in the Faculty of Built Environment's ESD (Equatorial Sustainable Design) Research Centre.</p> <p>Each student will be given a short research task to complete. Some tasks may involve the postgraduate students to work in groups.</p> <p>Description of typical tasks:</p> <ol style="list-style-type: none"> <li>1. Background data collection and verification.</li> <li>2. Summarizing research findings.</li> <li>3. Database preparation.</li> <li>4. Field survey and measurement.</li> <li>5. The student will attend seminars and discussions on possible research</li> </ol>	
7.	BAEE4183	Advanced Topical Studies		5		√		<p>This course guides the students on how to write a major piece of academic writing as a partial requirement for the conferment of the degree.</p> <p>They are free to identify a topic or issue in design or a related field that he or she wishes to study. It may be concerned with any aspect of architecture: history, theory,</p>	

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								<p>aesthetics, technology, sociology, philosophy, anthropology, or may be directed to a related discipline such as town planning, conservation or landscape design.</p> <p>The subject chosen must be amenable to effective investigation and reporting within the project period of one semester, and with the resources available in the department or by arrangement with outside specialists or other institutions. Students are encouraged to gain field experience or take the opportunity to travel in connection with the programme.</p> <p>The dissertation will be normally about 8,000 to 10,000 words, though some dissertation topics that use visual analysis may be of a shorter length. There will be full referencing of sources of material consulted. For each dissertation, a supervisor will be appointed to monitor the students' progress and advice on source material and writing up.</p>	
8.	BAEE4119	Building Conservation		2	✓			<p>The course is an introduction to the field of building conservation wherein the students are introduced to the issues of best conservation practices, existing and proposed related legislature, philosophies and issues.</p>	

## BACHELOR OF BUILDING SURVEYING

No	Course Code	Topic	Pre-requisite	Credit	Courses Offered Please tick (√) where applicable			Course Description	Other Description
					Semester I	Semester II	Special Semester		
1.	BCEC1101	Environmental Science & Sustainable		3	√			Introduction to the concept of environmental science within sustainable built environment and human lifestyle which is affected by lighting, ventilation and acoustic systems.	
2.	BCEC1102	Law Studies		3	√			This course focuses on Malaysian Legal System, tort and contract. It includes the principles and sources of Malaysian law, processes, systems and procedures, common law, statute and equity. This course covers the law of contract (Contracts Act 1950) emphasizing on capacity, consideration, intention to create legal relation and methods of discharging of contracts. It will also include the types of remedies covering damages, specific performance and injunction by making a specific reference to the Specific Relief Act 1950. The law of torts includes negligence, duty of care, breach of duty, causation, remoteness, professional negligence, nuisance and trespass to land.	
3.	BCEC1103	Structure Analysis		3	√			Introduction to building structures and design. Building loading, forces and reaction in structures. Concurrent coplanar forces, non-current coplanar forces and moment of forces. Framed structures. Material strength and safety factors. Axial forces, shear force and bending moment.	

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4.	BCEC1104	Material & Construction		3	√			Introduction to construction industry, building construction principles, methods and processes for low rise building; construction activities and parties involved; civil and building works; building structures and elements; sub structures, super structures, building materials and finishes.	
5.	BCEC1105	Building Services		3		√		Introduction to various type of building services system on low rise and high rise buildings; water supply and sanitation system, drainage and waste water system, reservoir system, plumbing system, garbage disposal system, installation of gas supply and fire fighting system.	
6.	BCEC1108	Building Law		3		√		Introduction to the basic of structural design. Properties of reinforced concrete, timber and steel. Loading distribution and load analysis. Design concrete beam, slab and column using the design chart. Design timber structures using elastic theory. Design steel structure	
7.	BCEC2102	M&E Services		3	√			Introduction to the various type of M&E systems within a building such as type of cable, telephone and communication system, safety and security system, mechanical transportation system, air-conditioning and mechanical ventilation system, lighting and electrical system, and Building Automation System (BAS).	

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8.	BCEC2103	Building Procurement & Specification		3	√			<p>Introduction to the standard methods of quantification and specification (SMM 2&amp;7). Application of measurement forms and measurement collection methods and description design. Quantification for renovation works, refurbishment, internal and external buildings and estimation</p> <p>Types of contract: Built, Operate and Transfer (BOT), direct negotiation, design and built, turnkey, lump sum, joint venture, and privatization. Contract process and procedures, Contract liability, Document for appointment of contractor (performance bond, insurance, etc.)</p>	
9.	BCEC2106	Building Pathology & Dilapidation		4		√		<p>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 and measurement techniques with appropriate apparatus; remedial techniques. Preparation of building defect report.</p>	

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10.	BCEC2107	Maintenance Management		3		√		Introduction to the various type of building maintenance; planned and preventive building maintenance methods; economical and efficient maintenance; maintenance and tasks organizational chart; maintenance activities; supervision and monitoring; and administration of contracting works. Exposure to sustainable building performance to provide a comfortable and productive environment to building users.	
11.	BCEC2108	Building surveying Computer Aided		3		√		Introduction to the project planning and management using computer applications. i.e. Computer Aided Design & Drafting, Microsoft Project and Computer Maintenance Management System. Exposure to the types and component of computer application, the use in designing and measuring buildings, the operation system and relevant image processing. Design drawing and project management through 2-Dimensional graphics using appropriate computer software.	
12.	BCEC3103	Maintenance Technique		3	√			Introduction to the principle and techniques of building maintenance; landscape maintenance operations; insect and pest control; health and safety aspects of workers/contractors in maintenance work. Exposure to sustainable building performance to provide a comfortable and productive environment to building users.	

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13.	BCEC3104	Facilities Management		3	√			Introduction to facilities management and its relation to building design and operation; strategic facilities operation management for organisations; the relationship between facilities management and building performance to ensure productive working environment. Exposure to sustainable asset management and facilities maintenance; and diagnosis of Post Occupancy Evaluation (POE) method to upgrade corrective operation; procurement of facilities project through service level agreement or contracts based on continuous performance; health and security awareness within workplace design.	
14.	BCEC3107	Safety Management and Risk		3		√		Introduction to risk, health and safety in construction industry: risk and danger, legislation and safety acts: OSHA 1994, building works guidelines; Role, importance and safety and health management: characteristics, policy, investigative methods, manuals and procedures; Accidents at site: report, monitoring and prevention. Explanation of current case studies which are related to safety and health issues in the construction industry.	
15.	BCEC3108	Research Methodology		2		√		Explore suitable quantitative and qualitative research methods, analytical thinking and literature review. Outline individual research project for conducting a dissertation.	



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16.	BCEC4101	Professional Practice		3	√			Introduction and understanding of the career of professional building surveyor, responsibilities and relationship with various professions, organizations and parties in construction industry. Area of services offered by building surveyor, roles, practice methods, ethics, quality and basic skills in building surveying. Contractual obligations: contractual relationship, liability, duties, insurance, method of payment and charges, fees, variation order, contractual relationship between consultants and client. Main purposes of appointment and interview for building surveyors and their involvement in building control.	
17.	BCEC4102	Building Fire Audit		3	√			Introduction to the evaluation of fire aspect and safety risk in building; forms of risk that contribute to loss of life, facilities and its effects on socio economic; existing building design legislation requirements and standards.	
18.	BCEC4103	Building Economic & Business		2	√			Introduction to construction industry, construction firm, building cost, cost control and planning mechanism, and development cost; supply and demand; and building life cycle cost. Principles of macro and micro economics. Introduction to small business finance	

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					Semester I	Semester II	Special Semester		
19.	BCEC4104	Construction Law		2	√			Introduction to the principles of construction law, the roles and objectives of construction law, construction contracts and related problems. It includes construction organisation structure, problems and responsibilities of the parties involved in the contract, risk allocation and claims. It will also cover the types of repudiation, litigation and alternative dispute resolutions.	

## BACHELOR OF ESTATE MANAGEMENT

No	Course Code	Topic	Pre-requisite	Credit	Courses Offered Please tick (√) where applicable			Course Description	Other Description
					Semester I	Semester II	Special Semester		
1.	BVEV1101	Introduction to Property		4	√			This course provides a theoretical foundation for understanding the valuation profession. It presents an overview of property markets and real estate characteristics. It introduces the general approach to valuation and emphasizes the computational skills.	
2.	BVEV1102	Principles of Economics		2	√			This course provides a theoretical foundation of understanding to the land economics course. The course introduces the knowledge in both micro and macroeconomics which covers a range of economic theories and concepts.	
3.	BVEV1103	Legal Studies		3	√			This course focuses on Malaysian Legal System, tort and contract. It includes the principles and sources of Malaysian law, processes, systems and procedures, common law, statute and equity. This course covers the law of contract (Contracts Act 1950) emphasizing on capacity, consideration, intention to create legal relation and methods of discharging of contracts. It will also include the types of remedies covering damages, specific performance and injunction by making a specific reference to the Specific Relief Act 1950. The law of torts includes negligence, duty of care, breach of duty, causation, remoteness, professional negligence, nuisance and trespass to land.	

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4.	BVEV1104	Accounting and Financial Management		3	√			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 the financial management which provides an understanding on accounting ratio and the application of financial statement.	
5.	BVEV1105	Construction Economics		3		√		This course provides a foundation of understanding to the building components, principles and stages of building construction and building defects. The costing of different components and construction phases are emphasised. The course tests the students' ability in comprehending the theories into a studio based coursework, case study and assessment.	
6.	BVEV1106	Property Market Analysis		2		√		This course delivers the methodological and technical knowledge of a wide range of analytical methods used in data analysis. It provides the analysis of data in various forms using a variety of qualitative and quantitative tools and techniques. The tools and techniques in this course include methods of grouping, structuring, sampling and presentation of data, tabling, frequency distribution, graphical representation, measures of location and deviation. Basic econometric concepts are introduced and students practise regression analysis and other statistical tools.	

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7.	BVEV1108	Introduction to Town Planning		3		√		This course provides a theoretical understanding of town planning. It is divided into three major aspects: the planning theories and models, the development plan system and the land and property development control system in Malaysia.	
8.	BVEV2209	Methods of Valuation		5	√			The course introduces the students to methods of valuation and discounting techniques. The course tests student ability to apply the various valuation methods in determining the value of various types of property which include residential property, industrial property, commercial property and agricultural property. Student must be able to demonstrate their capacity to apply the techniques.	
9.	BVEV2111	Land Development Law		3	√			The course provides legislative understanding related to legislations in land development which include the National Land Code 1965, Environmental Quality Act 1974, Environmental Quality Order 1987 and Housing Development Act 1966 (Amended). The course emphasis on the land alienation system in Malaysia, category of land use, amalgamation, subdivision, partition, surrender and re-alienation, land development requirements and regulations, land premium, and sale and purchase agreement.	

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10.	BVEV3120	Property Finance		3	√			The course exposes the students to the application of financial theory and policy in real estate sector. The course commences with an understanding of financial institutional framework related to property finance. It also comprises various aspects of securities mortgages. The course concludes with an exposure to relevant legislations governing property finance.	
11.	BVEV3122	Corporate Real Estate		3		√		This course provides an understanding on the concepts of management and planning strategies on operational real estate. The course also includes space planning, maintenance, outsourcing and performance monitoring.	
12.	BVEV3123	GIS and Spatial Analysis		3		√		The course is divided into two parts: site and building survey, and application of GIS in real estate. The first part provides a theoretical foundation of understanding of principles of land and building surveying and referencing to fulfil the requirement of Malaysian Valuation Standard. Students will have hands-on experience at the field work on the equipment used in land surveying. A studio based task is given for plotting the measurements. The second part introduces GIS application in real estate profession. The course establishes the methods and preparation of data input, range of GIS techniques for data validation and concludes with an exposure to current issues and GIS future in real estate. The course incorporates GIS computer based exercise.	

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13.	BVEV3124	Academic Project I (Research Methodology)		2		√		This course provides basic grounding on how to carry out real estate research. It provides an introduction to the research methodology and research design.	
14.	BVEV4125	Marketing and Business Skills		3	√			This course provides a theoretical foundation of understanding to the knowledge of marketing and business skills in real estate. The course also exposes the students to the principle of marketing and its application to real estate profession in accordance to Malaysian Estate Agency Standards.	
15.	BVEV4126	Ethics and Professional Practice		3	√			The course introduces ethics and professional practices governed by the Valuers, Appraisers and Estate Agent Act 1981 and Rules, Malaysian Valuation Standards and Malaysia Estate Agency Standards.	

## BACHELOR OF QUANTITY SURVEYING

No	Course Code	Topic	Pre-requisite	Credit	Courses Offered Please tick (√) where applicable			Course Description	Other Description
					Semester I	Semester II	Special Semester		
1.	BQES2101	Professional Practice I		3		√		This course delivers an overview of quantity surveying profession in respect of its responsibilities and roles in the public and private sectors. It covers various aspects of professional practice during the pre-contract stage from the inception till the preparation of contract document. The course will also cover the appointment, fees and professional ethics, administration of quantity surveying firms and procurement of contract. Reference will be made to the relevant provisions in the standard forms of building contract and related government circulars. Potential roles of quantity surveyors in any other industries will be explored.	
2.	BQES1102	Construction Technology I		3	√			This course provides knowledge on current application of construction technology. It includes construction system and foundation, floor, stairs, walls, roof and ceiling, doors and windows, finishing and construction materials.	
3.	BQES1103	Building Services I		2		√		Introduction to various type of building services system on low rise and high rise buildings; water supply and sanitation system, drainage and waste water system, reservoir system, plumbing	



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4.	BQES2102	Site Survey		2	√			The usage of lecture mode and hands-on technique are used in this course. It includes the learning of definition and principle of survey. The concept and procedure of survey. Survey equipment. Survey levelling. Procedure to ascertain parameter observation, bearing, distance and recording technique. Measurement of area, topography, cutting and filling. Confirmation of location for a proposed building and existing building.	
5.	BQES2103	Building Structure		2		√		Introduction to building structures and design. Building loading, forces and reaction in structures. Concurrent coplanar forces, non-current coplanar forces and moment of forces. Framed structures. Material strength and safety factors. Axial forces, shear force and bending moment.	

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6.	BQES2104	Principles of Management		2	√			This course examines the history of, principles and current issues in management and organization studies. It covers the principles and practices of modern organisation management include characteristics, structure, behaviour and effectiveness of organization, teamwork and leadership, values and culture of organization. The course will include the changing role of management, managerial skills and competencies, and strategic corporate management and framework for understanding the processes of management (e.g. planning, strategic decision making, SWOT analysis, corporate objectives, strategies and policies). This course will also cover the managerial identity and how it is constructed and consideration is given to what it means to be an effective human resources management system (e.g. staffing, organizing, coordinating, communication, and control).	
7.	BQES3103	Project Management I		3		√		The content of this course covers concept, theories, principles, and elements of project management, management and social systems, organisation and environmental systems, information and communication system, task distribution and roles of parties involved in a project. Other topics include planning, implementation, control and evaluation of construction projects, approaches of project management success factors and also behavioural	

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								dimensions and team work in project management.	
8.	BQES3104	Quality and Value Management		2	√			Course approaches from the organizational culture and a culture change perspective in order to maximise the company's ability to perform customer expectation. Client and end users of construction projects expect quality, value and continuous improvement is a requirement. The course examines in detail some of the technical and management methods for improving quality performance and value within an organisation, which includes the theoretical explanation of quality concepts (the definition, principal and concept of quality according to Deming, Juran, Ishikawa, Crosby, Taguchi, etc.), quality process (quality behaviour in construction and manufacturing sectors, the importance of planning and controlling, control cycle), quality system (quality assurance, documentation and audit), value management (FAST diagram, innovation) and professional practice (procurement and quality management system)	

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					Semester I	Semester II	Special Semester		
9.	BQES4101	IT Management in Construction		2	✓			Students will learn about the theory behind the use of Information Technology (IT) in the construction industry. The course examines on how the application of IT in construction sector (e.g. planning, controlling and managing construction projects) plays an important role in order to sustain the construction company's competitive advantages. A wide variety of assessment methods is used throughout the programme, including essays, reports, oral and graphical presentations, and projects	
10.	BQES1105	Data Analysis		2	✓			This course delivers the methodological and technical knowledge of a wide range of analytical methods used in data analysis. It provides the logical thinking and analysis of data in various forms and using a variety of qualitative and quantitative tools and techniques. The tools and techniques in this course includes methods of grouping, structuring, sampling and presentation of data, tabling, frequency distribution, graphical representation, measures of location and deviation, ratio, percentage analysis and probability theories.	

No	Course Code	Topic	Pre-requisite	Credit	Courses Offered Please tick (√) where applicable			Course Description	Other Description
					Semester I	Semester II	Special Semester		
11.	BQES3106	Property Development		2	√			This course focuses on the property development, property investment, and property value and property law. It includes the explanation on the enforcement of Act of Developer Housing and development instruction. This course will also explain on the investment principle and analysis, investment valuation technique, government policies towards land value, legal principles and legal cases that control land management.	

## BACHELOR OF URBAN AND REGIONAL PLANNING

No	Course Code	Topic	Pre-requisite	Credit	Courses Offered Please tick (√) where applicable			Course Description	Other Description
					Semester I	Semester II	Special Semester		
1.	BUEU1102	Introduction to Planning		3	√			This is an introductory course to urban planning. The course comprises of three main components: definition and principles of planning; planning history and planning organizations; and planning process. It allows students to appreciate the process of early city planning and planning development up to the present time.	
2.	BUEU1103	Legal Studies		3	√			This course focuses on Malaysian Legal System, tort and contract. It includes the principles and sources of Malaysian law, processes, systems and procedures, common law, statute and equity. This course covers the law of contract (Contracts Act 1950) emphasizing on capacity, consideration, intention to create legal relation and methods of discharging of contracts. It will also include the types of remedies covering damages, specific performance and injunction by making specific reference to the Specific Relief Act. The law of torts includes negligence. duty of care, breach of duty, causation remoteness, professional negligence, nuisance and trespass to land.	
3.	BUEU1104	IT in Planning		2	√			This course introduces the concepts of Geographic Information System (GIS) and its application in urban planning using GIS and AutoCAD software.	

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					Semester I	Semester II	Special Semester		
4.	BUEU1106	Land Use and Site Planning		3		√		This course introduces elements of site planning that begin with the recognizing of site characteristics, conditions, problems and limitations. The identification of site potential development requires examinations of surrounding development including elements of infrastructures, existing economic activities and local development policies that regulate urban land uses. The introduction to land use planning will cover urban land use theory, urban land use component, land use planning models, land use zoning categories and codes (use class order). Discussions on site development issues will include topics of how land use planning was incorporating site development potentials and planning controls.	
5.	BUEU1107	Community Development Planning		3		√		The course introduces social infrastructure concepts, characteristics, issues and challenges. It also relates the current practices of Malaysian Social and Infrastructure Policy in developing social infrastructures in spatial planning.	

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					Semester I	Semester II	Special Semester		
6.	BUEU2102	Quantitative Analysis in Planning		3	√			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 mean to communicate research findings effectively. Topics covered include types and sources of quantitative data, designing and administering questionnaire survey, basic descriptive and inferential statistics and the use of SPSS software for quantitative analysis.	
7.	BUEU2103	Planning Theory		3	√			This course will discuss the origins and evolution of planning theories. Lectures will especially focus on the discussion about different types of planners and their thinking mode and style and relate them to specific planning concepts and theories. Thereafter, relating those aspects to the planning environment and setting, exposing students also to the planning process and important planning ideologies. This will set students to understand the different types of situations planners will experience in the course of their career as planners and be able to conduct themselves appropriately.	



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					Semester I	Semester II	Special Semester		
8.	BUEU2104	Urban Economics		3	√			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, economic explanation for urban growth, economics of urban land use, urban location decision and the economics of urban public intervention. Students will also be exposed to the economic approach to selected urban problems such as congestion, crime, pollution etc.	
9.	BUEU2106	Planning Laws		3		√		This course will introduce the constitutional aspect of law relating planning and urban governance in Malaysia. The Malaysian planning system is governed by several legislation and regulation to ensure the efficiency and uniformity in implementation, control, enforcement of planning upon the usage of land and building in the local authority area and protection of public interest. The course covers National Land Code 1965, Local Government Act 1976, Town and Country Planning Act, 1976 (Act 172), Federal Territory (Planning) Act 1982, Street Drainage & Building Act, 1974 (Act 133). Uniform Building By-Law 1984, Land Acquisition Act 1960, National Heritage Act 2005.	

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					Semester I	Semester II	Special Semester		
10.	BUEU2107	Rural and Regional Planning		3		√		This course is divided into two parts: regional planning and rural development. The first part will students to the concept of regions, relevant theories of regional growth, techniques of regional analysis as well as the evolution of regional planning practices around the world. The second part will expose students to the various dimensions of rural planning including the management of natural resources and transformation of the rural communities in line with the principles of sustainable development.	
11.	BUEU2108	Planning Techniques and Methodology		3		√		This course covers the topics related to analysis and techniques requires in making decision in the planning process. Students will able to apply certain techniques in decision making and plans evaluation. The techniques that will be introduced includes the basic planning requirement, forecasting , plans evaluations using cost benefit analysis, balance sheets and goal achievement matrixes. Students will also be able to apply the techniques through selected case studies. Furthermore, students will be introduced to special requirements in planning process i.e. the environmental and social impact assessment.	

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					Semester I	Semester II	Special Semester		
12.	BUEU3102	Recreation and Tourism Planning		3	✓			This course discusses the physical and social aspects in recreation and tourism development. Students will do research on spatial planning in the provision and development of recreation and tourism: monitoring, implementation, planning in selected recreation and tourism area, and evaluating country's recreation and tourism projects. Other topics discuss includes the legal systems, standards, policies, strategies, implementation of recreation and tourism activities.	
13.	BUEU3103	Transportation and Traffic Planning		3	✓			This course will introduce students to transportation systems and its relationship to the urban land use system. 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 how to use transportation modelling computer software.	
14.	BUEU3104	Housing		3	✓			This course focuses on housing policy at federal, state and local levels affecting urban housing markets. Emphasis will be given on assessment of market conditions affecting community development decisions.	

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					Semester I	Semester II	Special Semester		
15.	BUEU3106	Development and Property Appraisal		3		√		This course provides an introduction to property development and the processes associated with it. It is designed to provide an understanding of the overall framework within which both public and private sector development takes place. The course also establish the economic context for the creation of value, introduce the principles for the assessment of value in property markets, develop a clear understanding of the valuation process and appropriately apply the principal valuation methods (conventional and contemporary) to a range of property types and interests.	
16.	BUEU3107	Environmental Planning and Management		3		√		This course discusses key concepts and topics in environmental policy, planning and management (definitions, concepts, scopes, elements and approaches) and also analyses local and global environmental problems and issues related to urbanisation. Integrating environmental concerns into decision-making in ensuring sustainable development will also be included.	
17.	BUEU3108	Urban Design and Conservation		3		√		This course involves a wide ranging types and scope of tasks. It begins with the definition of urban design and followed by the discussions of the urban design theories; principles involving inter-disciplinary nature that shaped by economic, social and political forces. This course also includes the conservation aspects, the survey techniques and analysis.	
18.	BUEU3109	Research Methodology		2		√		This course involves exploration of suitable quantitative and qualitative research	

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					Semester I	Semester II	Special Semester		
								methods, analytical thinking and literature review. Outline individual research project for conducting a dissertation	