

## **Architecture**

### **Introduction**

The Architecture Study Program at BINUS UNIVERSITY has taken the steps to design the curriculum in order to anticipate the developments of information technology in the global era and to fulfill market demand.

The subjects of the core curriculum are based on several competencies such as: Personal Development, Science and Skills, Working Expertise, Working Behavior, and Community Involvement. The required minimum credits that have to be taken are 146 credits. This curriculum will allow the opportunity to increase the knowledge and technology in architecture, to provide knowledge for those who want to be an entrepreneur in architectural work, and to pursue professional education or further studies in the master program (S2) and doctorate program (S3).

The Architecture Study Program focuses on delivering graduates of architecture who are ready to work, and are innovative since they are comprehensively educated with an integrated environmental concept and strong cultural values. Furthermore, mastery in information technology becomes a value-added as a graduate of Architecture of BINUS UNIVERSITY.

### **Vision**

To become a world class architecture department in continuous pursuit of innovation and enterprise based on IT.

### **Mission**

The mission of Architecture Department is to contribute to the global community through the provision of world-class education by:

1. Educating students in ICT based on creative and innovative design skills that help to improve the quality of life.
2. Educating students through cases on building environment, highlighting professional services and entrepreneurial skills.
3. Conducting research and improving student's research experience in sustainable building environment and local values.

### **Program Objective**

The objectives of the program are:

1. To provide students with the ability to produce an integrated building environment design using creative, innovative and ICT based solutions that help to improve quality of life.
2. To conduct research that focuses on sustainable building environment and local values.
3. To prepare students with knowledge of the professional ethics of an Architectural Entrepreneur.

### **Student Outcomes**

After completing the study, graduates are:

1. Able to develop a design concept that integrates research; which in particular are human behavior, environment, technical aspect and local values; with architectural design.
2. Able to do architectural design independently with research-based methods, and produce a creative architectural design which the solution on the contextual culture problem and which has been analysed based on the principles of architectural design.

3. Able to communicate their ideas and design in the form at graphics, narration and model comprehensively both in manual and digital techniques.
4. Able to present alternative design solutions and determine the decision based on architectural design principles.
5. Able to harness their design capability to do a supervision of a building environmental development
6. Able to develop students with ethical and aesthetic behavior, adaptive and appreciative.
7. Able to produce a creative, innovative and humane architectural principles, local values and urban architecture.
8. Able to design the architecture of the digital enrichment architecture integrated art, science, and technology based on information and communication technology (ICT).
9. Able to design the architecture of the real estate enrichment integrated art, science, and technology based on information and communication technology (ICT).
10. Able to design the architecture of the interior enrichment integrated art, science, and technology based on information and communication technology (ICT).

### **Prospective Career of the Graduates**

The graduate of the Architecture Study Program will have sufficient knowledge of Planning, Programming, and Designing, Building Technology, Project Management, Property Management, Interior Design and Mastery of Information Technology.

Therefore, the graduate of Architecture has the choice of a wide range of professions that include:

- |   |  |
|---|--|
| 1. Consultancy                          | : Architect  |
| 2. Construction                         | : Engineer, Contractor                             |
| 3. Construction Management              | : Construction Manager                             |
| 4. Banking                              | : Credit Analyst (Appraisal)                       |
| 5. Property                             | : Building Manager, Marketing, Real Estate Manager |
| 6. Interior                             | : Interior Designer                                |
| 7. Development                          | : Planner, Urban Designer, Developer               |
| 8. Information Technology               | : 3D Animator                                      |
| 9. Research                             | : Researcher                                       |
| 10. Media (Printed or Electronic media) | : Architecture Journalist, Writer, Editor          |
| 11. Independent Business                | : Freelance Architect                              |
| 12. Education                           | : Lecturer and Instructor                          |

### **Curriculum**

Famous for its reputation in Information Technology, BINUS UNIVERSITY has developed its expertise in the field of architecture that has orientation in computing or ICT either in design processing or in building operations. Architecture Study Program of BINUS UNIVERSITY updates with the development of information technology in architecture as today, the industry requires employees to have mastery in information technology. Based on these qualifications, the Architecture Study Program focused on the implementation of information of technology in the architectural design as the core competency in which this core competency has to be mastered by every student. The curriculum also has enrichment program such as internship and industrial experience for each student. The curriculum is based on both the National Curriculum and Architecture Study Program Association. Additionally, in order to fulfill the requirement of housing facility and sustainable development, the Architecture Study Program at BINUS UNIVERSITY also include "sustainable human settlement" as a part of its curriculum.

All of the curricula are supported by MCL (Multi Channel Learning) system namely BINUS Maya. It assists the students in the learning activity so that the students are able to study systematically integrated with BINUS Maya.

### Elective Group

The objective of this group is to provide the students with the insight knowledge and skills required by business and industry. The materials for this group will always be updated in accordance with the latest market demands so that graduates are ready to participate in and face the competition of the job market. The elective group contains three concentration subjects (stream).

### Concentration Subject (Stream)

1. **Digital Architecture** : This stream focuses on the insight of the ICT implementation on architectural design. The objective is to enable the students in integrating several architectural and simulation software in the architectural design that indeed the students will produce a variant architectural design that results from a quantified simulation studies.
2. **Interior Architecture**: The focus of this stream is to integrate a deep knowledge of interior aspect of architectural design that enables students to produce design based on behavior and character of user, completed with information technology, the visualization of the design will appear more creative and realistic.
3. **Real Estate**: This stream adds knowledge of economics as the modules. Therefore, the integration between architecture and the economic value enables students to produce creative and innovative design. The comprehensive teaching learning process enables students to understand various market demands.

All subjects of Architecture are distributed in 8 semesters. The concentration subjects (stream) are opened in the 4th Semester to 8th Semester.

### Course Structure

Sem	Code	Course Name	SCU	Total	
1	CHAR6013	Character Building: Pancasila	2	20	
	ARCH6001	Introduction to Architecture	2		
	ARCH6089	Aesthetics*	2		
	ARCH6015	Architectural Communication Technique	4		
	ARCH6018	Building Technology I	4		
	ARCH6042	Architectural Design I*&**	4		
	<b>English University Courses I</b>				
	ENGL6128	English in Focus	2		
	ENGL6130	English for Business Presentation	2		
2	CHAR6014	Character Building: Kewarganegaraan	2	21	
	ARCH6019	Building Technology II*	4		
	ARCH6041	Design Methods*&**	2		
	ARCH6043	Architectural Design II*&**	4		
	ARCH6048	Traditional Architecture*	2		
	ARCH6116	Architectural Design Computing I*&**	2		
	ENTR6509	Entrepreneurship: Ideation	2		
	LANG6061	Indonesian	1		
	<b>English University Courses II</b>				
	ENGL6129	English Savvy	2		
	ENGL6131	English for Written Business Communication	2		

Sem	Code	Course Name	SCU	Total	
3	CHAR6015	Character Building: Agama	2	24	
	ARCH6020	Building Technology III*	4		
	ARCH6044	Architectural Design III*&**	4		
	ARCH6047	Behavior in Architecture	2		
	ARCH6049	Modern Architecture*	2		
	ENTR6510	Entrepreneurship: Prototyping	2		
	ARCH6017	Site Planning*&**	4		
	ARCH6087	Architectural Design Computing II*&**	4		
4	ARCH6052	Utility*	2	22	
	ENTR6511	Entrepreneurship: Market Validation	2		
	ARCH6004	City and Settlement	2		
	ARCH6021	Building Technology IV	4		
	ARCH6045	Architectural Design IV*&**	6		
	ARCH6096	Architectural Research Methods	2		
	<b>Stream : Real Estate</b>				
	ARCH6009	Introduction to Real Estate*	2		
	ARCH6055	Property Assessment I	2		
	<b>Stream : Digital Architecture</b>				
	DSGN6008	Architectural Photography	2		
	ARCH6090	Architectural Geometry Design*&**	2		
	<b>Stream : Interior Architecture</b>				
	ARCH6054	Interior Design Principles	2		
ARCH6059	Building Material Knowledge*	2			
5	ARCH6050	Tropical Architecture**	2	20	
	ARCH6003	Building Physics*	2		
	ARCH6076	Project Management	2		
	ARCH6006	Seminar	2		
	ARCH6046	Architectural Design V**	6		
	ARCH6061	Sustainable Architecture*	2		
	<b>Stream : Real Estate</b>				
	ARCH6051	Urban Architecture*	2		
	ARCH6056	Property Assessment II	2		
	<b>Stream : Digital Architecture</b>				
	ARCH6088	Architectural Design Computing III*&**	4		
	<b>Stream : Interior Architecture</b>				
	ARCH6117	Acoustics and Lighting Design*	2		
	ARCH6067	Interior Installation	2		
6	<b>Enrichment Program I</b>		15	15	
7	<b>Enrichment Program II</b>		16	16	
8	ARCH6039	Final Project	8	8	
<b>TOTAL CREDIT 146 SCU</b>					

\*) This course is delivered in English

\*\*) Global Learning System Course

**English University Courses:**

- ) For 1<sup>st</sup> Semester: English University Courses I, student with score BINUS UNIVERSITY English Proficiency Test less than 500 will take English in Focus, and student with score test greater than or equal to 500 will take English for Business Presentation
- ) For 2<sup>nd</sup> Semester: English University Courses II, student with score BINUS UNIVERSITY English Proficiency Test less than 500 will take English Savvy, and student with score test greater than or equal to 500 will take English for Written Business Communication

**Enrichment Program I (6<sup>th</sup> Semester) & Enrichment Program II (7<sup>th</sup> Semester):**

- ) Student will take one of enrichment program tracks (off campus). See enrichment appendix for the tracks detail.

**Enrichment Track Scheme**

Track	Semester 6						Semester 7					
	IN	RS	EN	CD	SA	etc	IN	RS	EN	CD	SA	etc
1	v						v					
2	v							v				
3	v									v		
4	v										v	
5	v								v			

Notes:

- IN : Internship
- RS : Research
- EN : Entrepreneurship
- CD : Community Development
- SA : Study Abroad
- etc : Study Program Special Purposes

Notes:

Student will take one of enrichment program tracks

**Enrichment Internship Track**

Code	Course Name	SCU	Total
<b>Enrichment Program I</b>			
ARCH6091	Industry Experience	8	15
ARCH6092	Integrated Architectural Design	4	
ARCH6085	Project Programme	3	
<b>Enrichment Program II</b>			
ARCH6104	Internship	8	16
ARCH6100	Advanced Integrated Architectural Design	4	
ARCH6093	Advanced Project Programme	4	

**Enrichment Entrepreneurship Track**

Code	Course Name	SCU	Total
<b>Enrichment Program II</b>			
ENTR6290	Business Start Up	8	16
ENTR6197	Architectural Business Model & Validation	2	
ENTR6198	Launching New Venture Architectural Entrepreneurship	2	
ENTR6199	EES in New Architectural Business	4	

### Enrichment Research Track

Code	Course Name	SCU	Total
<b>Enrichment Program II</b>			16
RSCH6222	Research Experience	8	
RSCH6145	Architectural Scientific Writing	4	
RSCH6146	Global EES in Architecture	4	

### Enrichment Community Development Track

Code	Course Name	SCU	Total
<b>Enrichment Program II</b>			16
CMDV6122	Community Outreach Project Implementation	8	
CMDV6065	Community-Based Architecture	4	
CMDV6066	Employability and Entrepreneurial Skills in Architecture Community	4	

### Enrichment Study Abroad Track\*

Code	Course Name	SCU	Total
<b>Enrichment Program II</b>			16
GLOB6005	Elective Course for Study Abroad 1	4	
GLOB6006	Elective Course for Study Abroad 2	4	
GLOB6007	Elective Course for Study Abroad 3	4	
GLOB6008	Elective Course for Study Abroad 4	4	
GLOB6009	Elective Course for Study Abroad 5	2	
GLOB6010	Elective Course for Study Abroad 6	2	
GLOB6011	Elective Course for Study Abroad 7	2	
GLOB6012	Elective Course for Study Abroad 8	2	
GLOB6013	Elective Course for Study Abroad 9	2	
GLOB6014	Elective Course for Study Abroad 10	2	
GLOB6015	Elective Course for Study Abroad 11	2	
GLOB6016	Elective Course for Study Abroad 12	2	

\*) Transferred courses will be transferred based on credit transfer policies on study program with total of 16 credits.

### Student should pass all of these quality controlled courses as listed below:

No.	Course Code	Course Name	Minimal Grade
1.	CHAR6013	Character Building: <i>Pancasila</i>	B
2.	ENTR6511	Entrepreneurship: Market Validation	C
3.	ARCH6042	Architectural Design I*	C
4.	ARCH6043	Architectural Design II*	C
5.	ARCH6044	Architectural Design III	C
6.	ARCH6017	Site Planning*	C
<b>Stream: Real Estate</b>			
7.	ARCH6009	Introduction to Real Estate	C
8.	ARCH6051	Urban Architecture	C

No.	Course Code	Course Name	Minimal Grade
<b>Stream: Interior Architecture</b>			
7.	ARCH6054	Interior Design Principles	C
8.	ARCH6067	Interior Installation	C
<b>Stream: Digital Architecture</b>			
7.	ARCH6090	Architectural Geometry Design	C
8.	ARCH6088	Architectural Design Computing III	C

\*) Tutorial & Multipaper