



COLLEGE OF ARCHITECTURE

KOLEHIYO ng ARKITEKTURA

Location: UPCA Complex, E. Delos Santos St., UP Diliman, Quezon City 1101
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The architecture program was offered initially in June 1956 in the College of Engineering. Three years later, the School of Fine Arts and Architecture was established. The College of Architecture (CA) became a separate unit of the University in July 1970. After only 40 years of existence, in November 1999, the UP College of Architecture earned the honor of being adjudged Center of Excellence in Architecture by the Commission on Higher Education. This honor brought about the added challenge to offer a revitalized curricular program through the introduction of a more dynamic and comprehensive teaching methodology within the existing Bachelor of Science in Architecture (BS Arch) Program to encompass in a holistic manner the inputs of the various sectors of the community; the development of new and diversified science-based training courses in the Bachelor of Landscape Architecture (BLArch) Program; and the development of a Graduate Program with standards at par with those of internationally acknowledged architectural education centers.

PROGRAMS OFFERED

UNDERGRADUATE PROGRAMS

The College offers two undergraduate degree programs: the Bachelor of Science in Architecture (BS Arch) and the Bachelor of Landscape Architecture (BLArch).

The BS Architecture is a ladder-type curriculum in which the student earns initially a Certificate in Building Technology (CBT) title after three years. By completing the five-year program, the student then graduates with the bachelor's degree in architecture.

UP was the first academic institution to offer the Bachelor of Landscape Architecture program in the Philippines. It is a four-year program that has a balanced focus on design, technology, social, and environmental concerns.

GRADUATE PROGRAMS

Two graduate programs are offered: the Master of Architecture (MArch) and the Master of Tropical Landscape Architecture (MTLArch). The general rules of the University governing master's programs apply to these programs unless otherwise specified below. Degree holders who do not

have any subject in eastern and western cultures shall enroll in equivalent subjects in UP besides those required in the M Arch or MTLArch programs.

Master of Architecture

The program aims to provide opportunities for innovative advancement in the field of architecture through professional and scholarly endeavors. The program is open to holders of a bachelor's degree in architecture or related fields. The following form the basis for an applicant's admission: undergraduate academic record, professional experience, evident readiness for graduate work, and ability to discuss a selected list of readings in the intended major field before the College Graduate Committee. Any applicant who does not meet all the above requirements may, upon application, be admitted for graduate studies on a non-degree basis. Should such applicant desire eventually to earn a degree, he/she will be required to complete his/her deficiencies by enrolling in undergraduate courses without graduate credits.

Master of Tropical Landscape Architecture

This program aims to instill in the student a systematic outlook in creating an interplay of built-forms with the natural surroundings so that these do not become inimical to the cultural and social fabric of the locale. An applicant must have a BLArch degree. A holder of another

degree may be admitted into the program but will be required to take additional courses to comply with the requirements for the BLArch degree.

ADMISSION POLICIES/REQUIREMENTS

UNDERGRADUATE

Freshmen enrollees in the BS Arch and BLArch program must have passed the University of the Philippines College Admission Test (UPCAT). In addition, entrants to the Diliman campus must meet the University Predicted Grade (UPG) set by the Diliman campus for that particular year.

Students shifting from other courses or transferring from other UP units or other institutions must comply with the UP requirements on admission as well as those of the College of Architecture set forth below.

For Shiftees within the College

- 1) No minimum College Weighted Average (CWA) required but must not have been academically delinquent for the semester immediately prior to shifting
- 2) Student applicants must attend orientation after being notified of tentative acceptance by the college
- 3) Letter of confirmation by the student applicant to be submitted to the college after orientation prior to final acceptance by the college

For Shiftees within UP Diliman

- 1) CWA of 2.25 or better (for those who have earned credits of 60 units or more)
- 2) CWA of 2.0 or better (for those who have earned credits of 30 units or more)
- 3) Student applicants must attend orientation after being notified of tentative acceptance by the college
- 4) Letter of confirmation by the student applicant to be submitted after orientation prior to final acceptance by the college

For Transferees from UP units outside Diliman

- 1) General Weighted Average (GWA)
 - a) 2.25 or better (for those who have earned credits of 60 units or more)
 - b) 2.0 or better (for those who have earned credits of 30 units or more)
- 2) Student applicants must attend orientation after being notified of tentative acceptance by the college
- 3) Letter of confirmation by the student applicant to be submitted after orientation prior to final acceptance by the college

For Transferees from other schools

- 1) Student applicants must have completed and earned credit units of at least 33 academic units
- 2) GWA of 2.0 or better
- 3) Student applicants must attend orientation after being notified of tentative acceptance by the college
- 4) Letter of confirmation by the student applicant to be submitted after orientation prior to final acceptance by the college

GRADUATE

Master of Architecture

Any holder of an undergraduate degree in Architecture or a related field of study from a duly accredited institution may, upon application, be admitted to graduate studies leading to the degree of Master of Architecture.

An applicant's undergraduate academic record, professional experience, and evident readiness for a graduate work in the field of his/her choice shall form the basis for his/her admission.

Furthermore, the applicant shall have to show to the Graduate Committee of the College of Architecture his capability to discuss a selected list of readings in his/her intended field of specialization before he/she can be admitted to do graduate work.

Any applicant who does not meet all of the above requirements may, upon application be admitted to graduate studies on a non-degree basis. Should such applicant desire eventually to earn a degree, he/she will be required to complete his/her deficiencies by either enrolling in undergraduate courses without graduate credits or perform extra work as may be designated.

A senior undergraduate student may be allowed to enroll in not more than six (6) units of graduate credits, provided such credit units are not utilized to fulfill graduation requirements for his/her bachelor's degree.

Degree holders who do not have any subjects in eastern and western cultures shall enroll in equivalent subjects in the University of the Philippines besides those required in the Master of Architecture Program.

The Program Adviser shall assist the student in preparing his/her plan of study.

A student is allowed no more than five (5) academic years for completing all requirements to obtain his/her Master's degree, reckoned after his/her first enrollment. The thesis shall be on a subject within the major field which needs an original investigation or substantially modifies or broadens what has been previously known.

If the student fails in the defense of his thesis, he/she shall be allowed a second attempt within one year after the first. Failure to pass the second attempt disqualifies the student from further studies in the major field.

Master of Tropical Landscape Architecture

To satisfy the University requirements for admission into a master's program, applicants must have a Bachelor's Degree of Landscape Architecture. However, applicants who are holders of degrees other than the aforementioned degree may be accepted but will be required to take additional courses to comply with the requirements of the degree of Bachelor of Landscape Architecture.

Holders of a degree in the physical planning professions such as civil engineering and architecture, as well as in botany, agriculture, and forestry will have to take additional subjects in landscape design and/or construction upon the advice of the Program Adviser in order to comply with minimum requirements of the Bachelor of Landscape Architecture program of the University of the Philippines.

Degree holders who do not have any subject in eastern and western cultures shall enroll in equivalent subjects in the University of the Philippines besides those required in the Master of Tropical Landscape Architecture Program. The Program Adviser shall assist the student in preparing his/her plan of study.

PRIVATE SCHOLARSHIPS

The College has three current scholarships sponsored by private entities.

- 1) The Metrobank Foundation, Inc. (MBFI)- Boysen Scholarship Program
- 2) PHILREALTY Program
- 3) Panorama Development Corporation Scholarship Fund

BACHELOR OF LANDSCAPE ARCHITECTURE			
149 units			
APPROVAL 120th Special UPD UC : 02 April 2012 President AEPascual : 04 June 2012			
F I R S T Y E A R			
1st Semester 17 units		2nd Semester 18 units	
GE (MST 1) Free Choice	3	GE (AH 1) Eng 10	3
Math 11	3	GE (SSP 1) Kas 1*	3
Arch 1	3	Math 14	3
Arch 2	3	Arch 3	3
L Arch 10	2	L Arch 12	3
L Arch 11	3	L Arch 19	3
PE	(2)	PE	(2)
S E C O N D Y E A R			
1st Semester 18 units		2nd Semester 18 units	
GE (MST 2) Geol 1	3	GE (AH 2) Fil 40*	3
GE (SSP 2) Philo 1	3	GE 11	2
Arch 4	3	Arch 5	2
L Arch 20	3	L Arch 22	3
L Arch 21	3	L Arch 24	3
L Arch 23	3	L Arch 25	3
PE	(2)	L Arch 27	2
NSTP	(3)	PE	(2)
		NSTP	(3)
T H I R D Y E A R			
1st Semester 19 units		2nd Semester 21 units	
GE (MST 3) Free Choice	3	GE (AH 3) Comm 3	3
Stat 101	3	GE (SSP 3) Soc Sci 1	3
Arch 161	3	Arch 75	2
L Arch 131	4	Arch 162	3
L Arch 133	3	L Arch 132	4
L Arch 135	3	L Arch 137	3
		L Arch 139	3
S U M M E R			
4 units			
L Arch 140 ¹			4
F O U R T H Y E A R			
1st Semester 18 units		2nd Semester 16 units	
GE (AH 4) Free Choice	3	GE (AH 5) Free Choice	3
GE (SSP 4) Free Choice	3	GE (SSP 5) Free Choice	3
GE (MST 4) STS	3	L Arch 146	3
PI 100	3	L Arch 147	3
Arch 159	2	L Arch 199.2	4
L Arch 199.1	4		
¹ 32 hours/week for a 6-week summer session, equivalent to 12 hours/week for a 16-week regular semester			
* Kas 1 and Fil 40 satisfy the 6-unit Philippine Studies requirement			
Note: As a requirement for graduation, all students must take six (6) units in one of the National Service Training Program (NSTP) components: Civic Welfare Training Service (CWTS), Literacy Training Service (LTS), and Reserved Officer's Training Corps Military Science (ROTC Mil Sci). These are offered by UPD.			

BACHELOR OF SCIENCE IN ARCHITECTURE			
188 units			
APPROVAL 120th Special UPD UC : 02 April 2012 President AEPascual : 04 June 2012			
F I R S T Y E A R			
1st Semester 17 units		2nd Semester 19 units	
GE (AH 1) Eng 10	3	GE (AH 2) Comm 3	3
GE (SSP 1) Kas 1*	3	GE (AH 3) Fil 40*	3
Math 11	3	GE (SSP 2) Soc Sci 1	3
Arch 1	3	Math 14	3
Arch 2	3	Arch 3	3
Arch 10	2	Arch 16	2
PE	(2)	Arch 20	2
		PE	(2)
S E C O N D Y E A R			
1st Semester 21 units		2nd Semester 18 units	
GE (AH 4) Free Choice	3	GE (MST 1) Chem 1	3
Math 53	5	Physics 72	4
Physics 71	4	Physics 72.1	1
Physics 71.1	1	Arch 5	2
Arch 4	3	Arch 18	2
Arch 17	2	Arch 22	3
Arch 21	3	Arch 23	3
PE	(2)	PE	(2)
NSTP	(3)	NSTP	(3)
T H I R D Y E A R			
1st Semester 20 units		2nd Semester 20 units	
GE 11	2	GE (SSP 3) Philo 1	3
Arch 19	2	Arch 171	4
Arch 24	3	Arch 32	3
Arch 28	4	Arch 33	3
Arch 31	3	Arch 35	3
Arch 57	3	Arch 55	2
Arch 60	3	Arch 75	2
F O U R T H Y E A R			
1st Semester 20 units		2nd Semester 19 units	
GE (MST 2) Free Choice	3	GE (SSP 4) Free Choice	3
Arch 136	3	GE (MST 3) Free Choice	3
Arch 143	3	Arch 134	3
Arch 161	3	Arch 147	3
Arch 172	4	Arch 162	3
Arch 141	4	Arch 142	4
F I F T H Y E A R			
1st Semester 17 units		2nd Semester 17 units	
GE (SSP 5) Free Choice	3	GE (MST 4) STS	3
Arch 158	3	GE (AH 5) Free Choice	3
Arch 159	2	PI 100	3
Arch 163	3	Arch 199.2	4
Arch 176	2	Elective ¹	2
Arch 199.1	4	Elective ¹	2

¹ Electives may be taken from the following disciplines or studies: Architecture, Social Science, Humanities, Engineering, and Planning

* Kas 1 and Fil 40 satisfy the 6-unit Philippine Studies requirement

Note: Note: As a requirement for graduation, all students must take six (6) units in one of the National Service Training Program (NSTP) components: Civic Welfare Training Service (CWTS), Literacy Training Service (LTS), and Reserved Officer's Training Corps Military Science (ROTC Mil Sci). These are offered by UPD.

MASTER OF ARCHITECTURE			
42 units			
APPROVAL 248th UC : 21 January 1972			
Foundation Courses 9 units		Major 18 units	
9 units of any of the following: Arch 201, 202, 203, 204 Arch 205, 206, 207, 208 Arch 209, 211, 212, 213		Major Field Specialization 18	
Cognate Courses 9 units		Thesis 6 units	
Cognate courses: 9 Arch 209 Arch 211 Arch 212 Arch 213		Arch 300 6	

MASTER OF TROPICAL LANDSCAPE ARCHITECTURE			
39 units			
APPROVAL 12th UPD UC: 30 January 1988 President EQJavier: 26 February 26, 1988			
Tool Courses 9 units		Core Courses: Landscape Design 9 units	
9 units of any of the following: L Arch 201 3 L Arch 202 3 L Arch 205 3 L Arch 209 3		L Arch 260 3 L Arch 262 3 L Arch 265 3	
Landscape Mgt. & Tech. Courses 6 units		Electives 3 units	
L Arch 250 3 L Arch 255 3		6 units of any of the following: L Arch 206 3 L Arch 251 3 L Arch 263 3	
Required Course 3 units		Thesis 6 units	
L Arch 299 3		L Arch 300 6	

Note: An applicant must have a BLA degree. A holder of another degree may be accepted but will be required to take additional courses to comply with the requirements for the BLA degree.

COURSE OFFERINGS

UNDERGRADUATE

Architecture (Arch)

- 1 Architectural Communication I: Mechanical Drawing.** Drafting principles and techniques, applied descriptive and solid geometry; the development of skills in orthographics and reproduction techniques. 7 h. (1 lec, 6 studio). 3 u.
- 2 Architectural Communication II: Graphic Visualization and Representation Techniques.** Use of perspectives, various graphic and representation techniques in the conception and communication of space and design. 9 h. (lab). 3 u.
- 2-ID Architectural Communication II: Freeand Drawing.** Graphic techniques for expressing concepts and intentions, and their applications to architecture. 6 h (studio) 2 u.
- 3 Architectural Communication III: Formal Presentation Techniques.** The use of mixed media, photographic reproduction processes and model-making techniques, coupled with the principles and strategies behind various packaging techniques, for architectural presentations. Prereq: Arch 2. 9 h. (lab). 3 u.
- 3-ID Architectural Communication III: Formal Presentation Techniques.** The use of mixed media, photographic reproduction processes and model-making for presentation. Prereq: Arch 2-ID. 6 h. (studio). 2 u.
- 4 Architectural Communication IV: Introduction to Computer-Aided Design and Digital Visualization.** Introduction to the use of various computer software and digital media as tools for architectural presentation and design. Prereq: Arch 3. 5 h. (2 lec, 3 lab). 3 u.
- 4-ID Architectural Communication IV: Perspective Visualization and Representation.** Theories and techniques for envisioning forms and spaces in 3D in the context of architectural design and communication. Prereq: Arch 1, 2-ID. 4 h. (1 lec, 3 studio). 2 u.
- 5 Architectural Communication V: Digital Visualization in Architecture.** Advanced computer-aided design approaches, expressions and techniques in architectural study and presentation. Prereq: Arch 4. 6 h (lab). 2 u.
- 7-ID Architectural Communication VI: Advanced Communication Techniques.** Introduction to the use of information and communication technologies for analysis, architectural programming, design, and facilities management. 4 h. (1 lec, 3 lab). 2 u.
- 10 Architectural Design I: Foundations of Design.** Design fundamentals involving basic spatial and creative design problems. 4 h. (1 lec, 3 design studio). 2 u.
- 16 History, Theory and Criticism I: Introduction to Architecture.** A study of theories and texts that have influenced the analysis and the production of architectural form. 2 h (lec). 2 u.
- 17 History, Theory and Criticism II: Philippine Architecture.** A chronological study of Philippine Architecture from pre-colonial to contemporary times with focus on related theoretical issues. Prereq: Arch 16. 2 h (lec). 2 u.
- 18 History, Theory and Criticism III: Architecture of Asia and the Pacific.** A diachronic study of the architecture of Asia and the Pacific with focus on related theoretical issues. Prereq: Arch 17. 2 h (lec). 2 u.
- 19 History, Theory and Criticism IV: World Architecture.** A diachronic study of the architecture of Europe, the Americas, Middle East, Russia and Africa, with focus on related theoretical issues. Prereq: Arch 18. 2 h (lec). 2 u.
- 20 Architectural Design II: Design and Intra-Personal Spaces.** Design exercises involving the body, movements and experiences. Prereq: Arch 10. 4 h. (1 lec, 3 design studio). 2 u.
- 21 Architectural Design III: Design and Inter-Personal Spaces.** Design exercises relating spaces with values and culture, while emphasizing the role of society in the architectural creative process. Prereq: Arch 16, 20. 9 h. (design studio). 3 u.
- 22 Architectural Design IV: Design and Social Space.** Design exercises relating architecture with ethical, political and cultural concerns. Prereq: Arch 21. 9 h. (design studio). 3 u.
- 23 Building Construction I: Materials of Building Technology.** Materials of construction, their properties, use and applications, and emerging applications; preparation of specifications. Prereq: SYS. 5 h. (2 lec, 3 lab). 3 u.
- 23-ID Building Construction I: Materials of Building Technology.** Properties of building materials, their application and articulation; system of construction, preparation of specifications. Prereq: SYS. 3 h (lec). 3 u.
- 24 Building Construction II: Simple Frame Construction.** Light and medium construction systems; principles of simple frames using wood and masonry, small precast concrete units, light gauge metal and other relevant materials. Prereq: Arch 1, 23. 9 h. (drafting). 3 u.
- 24-ID Building Construction II: Wood and Masonry Construction.** Principles of modern building; introduction to construction methods; drawings for simple structures in wood and masonry. Prereq: Arch 1, 23-ID. 9 h. (drafting). 3 u.
- 28 Architectural Structures III: Statics and Strength of Materials for Buildings.** Visualization and analysis of forces acting on building elements and structures under static equilibrium;

strength of structural building materials. Prereq: Physics 71. 6 h. (3 lec, 3 lab). 4 u.

- 31 Architectural Design V: Site Context and Architecture.** Design exercises highlighting the role of context in the creative process of the environment. Prereq: Arch 22; Coreq: Arch 60. 9 h. (design studio). 3 u.
- 32 Architectural Design VI: Architecture, Technology and the Environment.** Design exercises emphasizing the relationships among architecture, technology and the environment while addressing economy and sustainability concerns. Prereq: Arch 31. 9 h. (design studio). 3 u.
- 33 Building Construction III: Heavy Frame Construction.** Construction methods and drawings for heavy reinforced concrete and steel structures showing their structural, electrical, plumbing and mechanical systems. Prereq: Arch 24. 9 h. (drafting). 3 u.
- 35 Utilities I: Plumbing and Sanitary Services in Buildings.** Principles and practices of sanitary installations in buildings and their environment. Prereq: Physics 71, Arch 24. 3 h (lec). 3 u.
- 55 Design with Nature: Tropical Design.** Techniques for the design and planning of buildings within the technological and social constraints prevailing in the hot-humid tropics. Prereq: SYS. 2 h (lec). 2 u.
- 57 Practice and Governance I: Building Laws.** Legal obligations and responsibilities of the architect; building contracts; the building code and related laws on land development and human settlements. 3 h (lec). 3 u.
- 60 Planning and Urban Design I: Site Planning and Landscape Architecture.** The artistic and functional arrangement of buildings; enhancement and design techniques for exterior environments. Coreq: Arch 31. 3 h (lec). 3 u.
- 75 Architectural Research: Basic Research Methods in Architecture.** Quantitative and operational methods in architectural design research, user-requirement and performance in use analysis. Prereq: SYS. 2 h (lec). 2 u.
- 105 Architectural Communication VII: Theory of Color.** Physical and psychological properties of color, their relevance to defining space, form and textures. Prereq: Arch 3. 3 h (lec). 3 u.
- 128 Architectural Structures VI: Laboratory in Architectural Structures.** Models, simulation and statistical experiments on the durability, stability and strength of building structures. Prereq: Arch 28. 3 h. (lab). 1 u.
- 134 Building Construction IV: Building Systems and Technology.** Quantity surveying and cost estimating; construction methods and drawings for pre-fabricated components, membrane structures and industrialized systems; architectural detailing. Prereq: Arch 33. 5 h. (2 lec, 3 lab). 3 u.
- 136 Utilities II: Mechanical and Electrical Systems of Buildings.** Mechanical and electrical systems in buildings, their design, equipment, installation and maintenance. Prereq: Phys 72, Math 54. 3 h (lec). 3 u.
- 140 Utilities VI: Utilities for Building Interiors.** Principles and applications of environmental control and sanitation, the relations to building interiors. Prereq: 4th year standing. 3 h (lec). 3 u.
- 141 Architectural Design VII: Integrative Design Project I.** The first of two single design projects of a creative and technical level integrating knowledge and skills acquired from all previous and present architectural courses Arch 32, 75. 10 h (1 lec, 9 studio). 4 u.
- 142 Architectural Design VIII: Integrative Design Project II.** The second of two single design projects of a creative and technical level integrating knowledge and skills acquired from all previous and present architectural courses. Prereq: Arch 141. 10 h. (1 lec, 9 lab). 4 u.
- 143 Utilities III: Architectural Lighting.** The psychophysics of daylighting and artificial illumination in buildings, their measurement, analysis and design. Prereq: Physics 72. 5 h. (2 lec, 3 lab). 3 u.
- 144 Architectural Communication VIII: Color Dynamics.** Kinetic, perceptual and cultural constraints in the use of color in architecture. Prereq: Arch 3, 20. 2 h (lec). 2 u.
- 147 Utilities IV: Architectural Acoustics.** The psychophysics of acoustics in buildings and their immediate environment; their measurement, analysis and design. Prereq: Physics 72. 5 h. (2 lec, 3 lab). 3 u.
- 148 Utilities VII: Environmental Lighting.** The lighting of building exteriors, parks, playfields and roadways for aesthetics and safety; their measurement, analysis, design and maintenance. Prereq: Arch 143, Arch 136. 2 h (lec). 2 u.
- 149 Utilities VIII: Environmental Acoustics.** Sound and noise control in building site and urban areas. Prereq: Arch 147. 3 h (lec). 3 u.
- 153 Architectural Design X: Architectural Manufacturing.** Exercises aimed at developing market-responsive designs of phototypes of architectural components, such as doors, windows, lighting fixtures. Prereq: 3rd year standing. 4 h. (1 lec, 3 lab). 2 u.
- 156 Architectural Design XI: Evaluation of Architectural Design.** Studies of architectural forms, systems, components and

details in relation to production efficiency, environmental criteria, use and maintenance. Prereq: SS. 3 h (lec). 3 u.

158 Practice and Governance II: Professional Services of the Architect. Architecture as a Profession, Code of Ethical Conduct and Standards of Professional Practice, appreciation of Regular Design Services and Comprehensive Professional Services and practical guidelines in setting up and managing an architectural office. Prereq: Arch 57. 3 h (lec). 3 u.

159 Practice and Governance III: Finance, Taxation, Civics and Land Reform for Architects. Financial analysis, accounting, taxation and land reform as related to the business of architecture; special studies in population education and the new constitution. Prereq: Arch 57/equiv. 2 h (lec). 2 u.

161 Planning and Urban Design II: Fundamentals of Urban Design and Community Architecture. Order, culture and expression for design of exterior architecture in towns and cities. Prereq: Arch 60/equiv. 3 h (lec). 3 u.

162 Planning and Urban Design III: Introduction to Urban and Regional Planning. Concepts, trends, methods and techniques in urban planning; overview of land use on planning of regions. Prereq: Arch 161. 3 h (lec). 3 u.

163 Planning and Urban Design IV: Socio-Cultural and Institutional Aspects of Housing. Socio-cultural and institutional challenges for effective delivery of housing. Prereq: Arch 162. 3 h (lec). 3 u.

166 Architectural Communication IX: Architectural Photography. Photographic techniques applied to architectural presentation. Prereq: JS. 5 h. (2 lec, 3 lab). 3 u.

168 Architectural Communication X: Model-Making for Building Interiors. Development of interior design concepts and furniture layout with the use of scaled models. Prereq: JS. 5 h. (2 lec, 3 lab). 3 u.

171 Architectural Structures: Form-Finding in Structures I. Application of statics and analysis of material strength in form-finding in buildings. Prereq: Arch 24, 28. 6 h. (3 lec, 3 lab). 4 u.

172 Architectural Structures: Form-Finding in Structures II. Application of statics and analysis of material strength in designing or choosing foundation systems for buildings. Prereq: Arch 171. 6 h. (3 lec, 3 lab). 4 u.

176 Utilities V: Health and Safety in Buildings. Design parameters for accessible, healthful and safe architectural spaces and environments. Prereq: Arch 35, Arch 136. 2 h (lec). 2 u.

199.1 Architectural Design IX: A Comprehensive Design Project (Pre-design to Schematic Development). A final design activity demonstrating comprehension of all architectural courses in the program, Part 1. Prereq: Arch 142, 171. 10 h. (1 lec, 9 design studio). 4 u.

199.2 Architectural Design X: A Comprehensive Design Project (Design Development). A final design activity demonstrating comprehension of all architectural courses in the program, Part 2. Prereq: 199.1. 10 h. (1 lec, 9 design studio). 4 u.

GRADUATE

Architecture (Arch)

201 Introduction to Architectural Research. 3 u.

202 Dynamics of Architectural Space. Experiments on the functional meaning of space with emphasis on kinetic, climatic, structural, visual and sonic parameters and their interaction. 3 u.

203 Architectural Mensuration. The measure of man, his perception and movements in relation to the modular coordination of space. 3 u.

204 Evolution of Space in Architecture. History, theory and processes in the development of architectural concepts. 3 u.

205 Tropical Architecture. 3 u.

206 Management for Architectural Practice. Quantity surveying, building and land economics for architects, cost evaluation, specifications and building systems analysis. 3 u.

207 Computer-Aided Design. Use of computers in facilitating design processes. 3 u.

208 Designing with Nature. Relationship of the eco-system to the design for human functions. 3 u.

209 Decision-Making for Architects. Framework for a general theory in decision-making and decision situations. 3 u.

211 Fire Safety in Buildings. Occupancy evaluation; materials specifications and equipment for fire protection in buildings. Prereq: Arch 136/COI. 3 u.

212 Energy Conservation in Buildings. Occupancy evaluation, energy audit and energy-efficient design procedures for buildings in the tropics. Prereq: Arch 55, 136. 3 u.

213 Quantitative Methods for Architectural Analysis. Geometry of the environment; graphing; behavioral structures and

- circuits in architectural space; the clustering and linkages of architectural functions. Prereq: JS, Math 103. 3 u.
- 221 Architectural Design I.** 3/6 u.
- 222 Architectural Design II.** Prereq: Arch 221. 3/6 u.
- 223 Architectural Design III.** Prereq: Arch 222. 3/6 u.
- 231 Elements of Community Architecture.** Design concepts and principles in relation to development processes. 3 u.
- 232 Community Architecture I.** Studies and design approaches for selected built forms functional to human activities. 3/6 u.
- 233 Community Architecture II.** Studies and design approaches for selected complex problems having inter-spatial characteristics. Prereq: Arch 232. 3/6 u.
- 234 Community Architecture III.** Studies and design approaches for regionally-oriented problems affecting the eco-system. Prereq: Arch 233. 3/6 u.
- 235 Service and Utility Systems.** Conceptual development of service and utility systems for various human functions; advanced theories and design standards for site selection and articulation. 3 u.
- 236 Movement Systems: Needs and Facilities.** Design criteria; methods for filling gaps, providing options and the efficient operations of systems fitted to the human scale. 3 u.
- 251 Structural Concepts.** Non-mathematical discussion of structural concepts and principles in relation to the architectural design process. 3 u.
- 252 Structural Systems in Architecture I.** Non-mathematical analysis of structural systems used in building and/or shelters. Prereq: Arch 251. 3/6 u.
- 253 Structural Systems in Architecture II.** Continuation of Architecture 252. 3/6 u.
- 254 Environmental Technology I.** An investigation of the design elements of lighting in relation to the needs of man. Prereq: Arch 143. 3 u.
- 255 Environmental Technology II.** An investigation of sound in relation to the architectural sensitivity of man. Prereq: Arch 149. 3 u.
- 256 Building Technology I.** Analysis of materials and methods of construction as they influence architectural forms and functions. Prereq: Arch 251. 3/6 u.
- 257 Building Technology II.** Continuation of Arch 256. 3/6 u.
- 258 Frame Analysis of Architectural Structures.** Graphical and computer methods for the analysis of three-dimensional structures; their practical relevance to architectural design and the architect. Prereq: Arch 172. 3 u.
- 259 Complex Architectural Structures.** Design concepts utilizing space frames, tensile members, geodesics, thin shells and other three-dimensional structures. Prereq: Arch 172. 3 u.
- 260 Fallout Shelters.** Radiation shielding; environmental shelter factors; design criteria and shelter analysis. Prereq: Arch 55. 3 u.
- 261 Fundamentals of Housing.** Housing need, supply and demand; influences in national development. 3 u.
- 262 Research Methods for Housing Design.** 3/6 u.
- 264 Analytical Methods for Housing Design.** Theory and methods of housing market analysis, housing finance and their organization with emphasis on design constraints. 3 u.
- 265 Current Issues in Housing.** 3 u.
- 267 Special Studies in Housing.** 3 u.
- 268 Housing Design.** Guided studies and design approaches for selected problems in housing. Prereq: Arch 261. 3/6 u.
- 299 Seminar.** Directed collaborative studies relevant to interdisciplinary systems-action. 3 u.
- 300 Thesis.** 6 u.

GENERAL EDUCATION COURSE

Landscape Architecture (L Arch)

- 1^a Designing Eden: Introduction to Philippine Landscape Architecture.** Walking-through Philippine landscape architecture through sciences and arts. 3 h (lec). 3 u.

UNDERGRADUATE

Landscape Architecture (L Arch)

- 10 History of Landscape Architecture.** Developmental history and relationship to society, climate and topography. 2 h (lec). 2 u.
- 11 Landscape Design I.** Fundamentals of landscape design; their features and functions. 7 h. (1 lec, 6 studio) 3 u.
- 12 Landscape Design II.** Continuation of Landscape Architecture 11. Prereq: L Arch 11. 7 h. (1 lec, 6 studio) 3 u.

^aMay be taken to satisfy Philippine Studies requirement. Can be taken to fulfill AH, MST or SSP GE requirement; can be credited only once

- 19 Theory of Landscape Architecture Design.** Design theories that emphasize relevance of Landscape Architecture to the natural and built environment; evaluation and analysis of the different theoretical components applicable to landscape architecture. 3 h (lec). 3 u.
- 20 Landscape Ecology.** Fundamental principles and concepts of Landscape Ecology. Prereq: 2nd Year Standing. 3 h (lec). 3 u.
- 21 Landscape Design III.** Analytical techniques and form determinants to basic landscape problems. Prereq: L Arch 12, 19. 7 h. (1 lec, 6 studio). 3 u.
- 22 Landscape Design IV.** Continuation of Landscape Architecture Prereq: L Arch 21. 7 h. (1 lec, 6 studio). 3 u.
- 23 Hardscape Construction I.** Hardscape materials, planned, and specified and applications in basic landscape construction. Prereq: SYS.5 h. (2 lec, 3 lab). 3 u.
- 24 Hardscape Construction II.** Principles of structural design for landscape structures; detailing and working drawings; cost estimates. Prereq: L Arch 23, 133. 7 h (1 lec, 6 lab). 3 u.
- 25 Softscape Materials.** Plant materials, planned and specified, in landscape design. Prereq: Nat Sci 2/COI. 5 h (2 lec, 3 studio). 3 u.
- 26 Interior Plantscaping.** Design relationships of landscape architecture and building interiors; applications of plant materials to the design of interiors. Prereq: JS. 5 h. (2 lec, 3 studio). 3 u.
- 27 Landscape Lighting.** Lighting analysis, design and materials for exterior environments. Prereq: SYS. 2 h (lec). 2 u.
- 131 Landscape Design V.** Program development and application of functional requirements to intermediate landscape problems. Prereq: L Arch 22. 10 h. (1 lec, 9 studio). 4 u.
- 132 Landscape Design VI.** Continuation of Landscape Architecture 131. Prereq: L Arch 131/COI. 10 h. (1 lec, 9 studio). 4 u.
- 133 Site Grading and Landform Design.** Graphic design and solution to construction problems; grading and surfacing; working drawings. Prereq: JS, GE 11, and a GE course dealing with basic geology/earth sciences. 7 h. (1 lec, 6 studio). 3 u.
- 135 Planting Design.** Aesthetics, functional and economic applications of plant materials, their documentary representations for design. Prereq: L Arch 25. 5 h. (2 lec, 3 studio). 3 u.
- 137 Utilities for Sites and Landscape.** Water, sanitary, electrical and mechanical systems for the landscape. Prereq: L Arch 133. 3 h (lec). 3 u.
- 139 Professional Practice and Office Administration.** Landscape architecture as a profession, its ethics, practice, and administration. Prereq: JS. 3 h (lec). 3 u.
- 140 Practicum.** Prereq: L Arch 139. (32 hours/week for a 6-week summer session, equivalent to 12 hours/week for a 16-week regular semester). 4 u.
- 146 Tropical Landscape Maintenance and Management.** Principles and techniques in the maintenance and management of the designed landscape. Prereq: L Arch 135. 7 h (1 lec, 6 lab). 3 u.
- 147 Regional Landscape Technology.** Ecological parameters of the regional environment, their impact on human settlements development. Prereq: SS. 5 h. (2 lec, 3 studio). 3 u.
- 199.1 Landscape Design Research.** Pre-design analysis and research for complex landscape design problems. Prereq: L Arch 132, Arch 75. 10 h (1 lec, 9 studio). 4 u.
- 199.2 Special Projects in Landscape Architecture.** 4 u.

GRADUATE

Tropical Landscape Architecture (TLA)

- 201 Man and His Ecological Environment.** Development of awareness and sensitivity to human needs; their translation into landscape design applications. 3 h (lec). 3 u.
- 202 Landscape Design and Culture.** The historic, symbolic, aesthetic, technological and social purposes of landscape design; its physical manifestation as a mirror of culture. 3 h (lec). 3 u.
- 205 Land Forms and Other Nature Forms.** Study of environmental and ecological factors as related to decision-making for landscape planning and design. 3 h (lec). 3 u.
- 206 Vegetation Analysis and Planting Design.** Analytical studies in plant selection, planting design and implementation. 5 h. (2 lec, 3 studio). 3 u.
- 209 20th Century Landscape Design and the Future.** Case studies of outstanding examples of landscape design with emphasis in the tropics; their implications in the future. 3 h (lec). 3 u.
- 250 Landscape Design Construction and Management.** Analytical studies in landscape design construction detailing, land form alteration and vegetation management. 7 h. (1 lec, 6 studio). 3 u.
- 251 Computer Applications in Landscape Architecture.** Applications of computer mapping and graphics, landscape construction, planting design and database management. 5 h. (2 lec, 3 lab). 3 u.

- 255 Advanced Regional Landscape Technology.** Issues in landscape transformation and management; technologies for environmental conservation, development and protection. 5 h. (2 lec, 3 studio). 3 u.
- 260 Advanced Tropical Landscape Design.** Comprehensive analysis of program, user characteristics, region and site. The technical translation and refinements of landscape plans and designs. 5 h. (2 lec, 3 studio). 3 u.
- 262 Countryside Landscape Design.** Landforms and content for the needs of countryside development; the shaping of land for various functions. 7 h. (1 lec, 6 studio). 3 u.
- 263 Landscaping for Recreation and Resort Facilities.** Application of landscape planning and design to complex problems involving recreation and resort facilities. 5 h. (2 lec, 3 lab). 3 u.
- 265 Urban Landscape Design.** Applications of principles and determinants of spatial composition to the urban landscape, the use of landscape media for development and redevelopment. 7 h. (1 lec, 6 studio). 3 u.
- 299 Research Methodologies for Landscape Design.** 5 h. (2 lec, 3 studio). 3 u.
- 300 Thesis.** 6 u.