

**PROSPECTUS FOR THE POST GRADUATE PROGRAMME**

**LEADING TO THE DEGREE OF**

**MASTER OF URBAN AND REGIONAL PLANNING**

**by**

**COURSE WORK**

**in**

**THE FACULTY OF CIVIL ENGINEERING AND ARCHITECTURE**

## MASTER OF URBAN AND REGIONAL PLANNING PROGRAMME

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## 2. BRIEF HISTORY OF THE UNIVERSITY

The NED University of Engineering and Technology, Karachi was established in March 1977, under an act of the Provincial Assembly of Sindh after upgrading of the former NED Government Engineering College, which, was setup in 1922. The NED University is thus the oldest institution in Pakistan for teaching and producing Engineering graduates. Prior to this, the D.J. Sindh College (established in 1887), used to run classes to train subordinates for the Sindh P.W.D., the Municipalities and Local Boards from 1889 to 1922. It was the Principal of this institution Mr. S.C. Shahani, who came up with the idea of establishing a full-fledged engineering college when the demand for trained engineers in Sindh increased with work on the Sukkur Barrage.

The formal proposal to setup an engineering college in Karachi affiliated with the University of Bombay was made by Mr. Shahani in August 1921. Provisional affiliation of the NED Engineering College to the University of Bombay to teach a three-year course leading to a degree of Bachelor of Engineering (Civil) was granted by the Government in 1924. In his efforts, Mr. Shahani was ably supported by one of Karachi's greatest philanthropists, Mr. Jamshed Nusserwanji Mehta. The major contribution to the establishment of this College was from the family of Nadirshaw Eduljee Dinshaw whose initials gave the College its name. Besides his family, the Khilnani, Bai Puribai and Bacharbai Trusts as well as the Hindustan Construction Company contributed substantial amounts.

The first-full time principal of NED Engineering College was Mr. G.N. Gokhale who joined on 1<sup>st</sup> July 1923. Prior to this, Rai Sahib Bhupatrai had acted as Honorary Principal. The first professor (and Vice-Principal) was Mr. S.B. Jannarkar who, along with Mr. Gokhale, did all the spadework in organizing and equipping the various departments and ordering the equipment of the Power House, Boiler Room, Hydraulics

Laboratory, Engine Room and Machine Shops. All this, of course, was in addition to their main job of teaching students.

The original NED Engineering College was housed in four blocks of buildings and two sheds. The main block was named as Seth Fatehchand Dewandas Khilnani Hall. The block housing the Power House, Electrical and Hydraulics Laboratories, and Workshops was named after Bai Puribai and Bacharbai. Further additions were made to this block to provide accommodation for the Machine Shop on the ground floor and a (Mechanical) Drawing Hall on the first floor. The fourth block, completed in 1945, contained a Classroom and Clerk's Office on the ground floor and another (Civil) Drawing Hall on the first floor.

Two sheds were also built, one to house the Carpentry and Smithy Shops, and the other, alongside the Electrical Laboratory and Engine Room, to train technicians. The total cost of the buildings was just over Rs. 265,000 and the cost of equipment (including machinery, electrical instruments; models, steam, gas and oil engines; surveying and leveling instruments), books and furniture was just under Rs. 400,000.

The college remained affiliated to the University of Bombay from its inception in 1922 to 1947, after which it was taken over by the Government of Sindh; renamed as NED Government Engineering College and affiliated to the University of Sindh. After establishment of the University of Karachi in 1951, the affiliation of the College was transferred to this University. In 1964, a comprehensive plan was prepared to shift the college from its location in the congested downtown area (where no expansion was possible) to a new site adjoining the University of Karachi. The Project was carried out with the assistance of the World Bank and the College was shifted to its new 40 hectare campus in 1975.

On the 1<sup>st</sup> of March, 1977 the NED University Government College became the NED University of Engineering and Technology. From an enrolment of 50 students in 1923, the student population, at both undergraduate and graduate levels in the main campus, has now gone up to over 4000. The first Vice-Chancellor of the University was Mr. A.M. Akhoond who was succeeded in sequential order by Prof. Dr. A.T. Khan, Prof. Dr. Jameel Ahmad Khan, Prof. Dr. M. Munir Hasan and Prof. Dr. A. Q. Qazi (Acting as per Notification from 14-04-1994 until 01-12-1996) Engr. Abul Kalam, is the present Vice-Chancellor.

Eversince its inception, the university had laid down the academic framework for architecture and planning education. From 1977-98, the university conducted a Bachelor of Architecture Programme at the campus of an affiliated college. Similarly the university also promoted higher education in the related disciplines. A Masters Degree Course in Urban Design was offered from 1992 to 1998 at the same college. However in the year 2000, the university created its own Department of Architecture and Planning which run the Bachelor of Architecture Programme at the main campus. This programme focuses to produce technically sound and socially responsive professionals equipped with a profound understanding of contemporary tools and skills. The revised curriculum

includes essential streams of learning including architectural design; history of civilizations; environment, planning and development; construction, materials and technology; computer applications in design and structures for architects. In addition to regular studies, the faculty members and students of the Department actively organize and participate in professional events such as seminars, workshops and symposia. The Department also publishes a Journal of Research in Architecture and Planning on an annual basis.

### **3. DEPARTMENT OF ARCHITECTURE AND PLANNING**

#### **3.1 Introduction and Background**

On the basis of the prevailing scenario of architectural education in the country in general and Karachi in particular, it can be stated without doubt that there remains an urgent need for an architectural education institution that is capable of imparting quality education, foster research and scholastic pursuits as well as generate useful human resource for the broader socio-economic development of the country.

The working strength of architects is much less than what is practically needed. Given the vast professional sphere in which the architects operate, the numerical strength is simply minimal. A technically sound and socially responsive breed of architects needs to be produced to fill this widening gap.

The NED University has remained the foremost institution in professional education in engineering and related disciplines. In its working, the university had developed a regulatory, academic and administrative framework for architectural education which today provides a ready base for appropriate architectural education.

The creation of a department of architecture and planning has been a part and parcel of NED's Master Plan. The present resources, facilities, spaces and technological backup are ample and adequate to support this purpose. Besides, the presence of various disciplines at the university act as supportive factor for the architecture department.

#### **3.2 Principal faculty for the Programme**

<b>Chairman</b>	<b>Telephone</b>	
	<b>Office</b>	<b>Residence</b>
Prof. Noman Ahmed	9213058 2620793	4979310

### **Professor**

1. Prof. Noman Ahmed B. Arch;  
M.C.P. (METU, Ankara-Turkey)  
MPCATP

### **Associate Professors**

2. Ms. Asiya Sadiq B.Arch; M. Arch (KU, Leuven, Belgium)  
MPCATP
3. Ms. Anila Naeem B.Arch; M.S. in Restoration and  
Historic Preservation  
(METU, Ankara-Turkey)  
MPCATP
4. Ms. Fariha Amjad Ubaid B.Arch; MCPUD (METU, Ankara-Turkey)  
MPCATP

### **Assistant Professors**

5. Ms. Fahmida Shaikh B.Arch; MPCATP
6. Mr. Ravindar Kumar B.Arch; MUD; MPCATP
7. Ms. Shabnam Nigar Mumtaz B.Arch; MUD; MPCATP

In addition to regular faculty members, qualified personnel in the city may be engaged for postgraduate teaching.

## **4. REGULATIONS FOR THE DEGREE OF MASTER OF URBAN AND REGIONAL PLANNING IN THE FACULTY OF CIVIL ENGINEERING AND ARCHITECTURE**

### **4.1 Title**

These Regulations may be called the ‘NED University of Engineering and Technology, Regulations for the Degree of Master of Urban and Regional Planning Programme in the Faculty of Civil Engineering and Architecture’.

### **4.2 Commencement**

This programme shall come into force from the Academic Year 2003.

### **4.3 Nature of the Degree**

The degree to be awarded under the Post-Graduate Programme of the Master of Urban and Regional Planning by Course Work will be abbreviated as M.U.R.P. by Course Work. The Programme is proposed to be initiated in the 2002-2003 Academic Session and enrolment on the programme shall commence from January 2003.

### **4.4 Criteria and Procedure for Admission**

- (i) For admission, the candidate must possess degree of Bachelor of Architecture or Bachelor of City and Regional Planning or Bachelor of Engineering (Civil) or Bachelor of Engineering (Urban) or equivalent in 1<sup>st</sup> division. The candidate may possess valid registration with the concerned professional council.
- (ii) To be enrolled in Post-Graduate Day Time/Evening programme leading to the degree of Master of Urban and Regional Planning, the candidate must have attained a high degree of scholarship in his/her undergraduate study in the relevant field and must have demonstrated promise of success in advanced study.
- (iii) The admission will be granted on the basis of merit. Merit list of successful candidates will be prepared in accordance with the criteria as under:
  - (a) The candidates eligible for admission will be selected on the basis of selection criteria based on the admission test/performance at HSC (Pre-Engineering) and B.E., B.Arch./B.C.R.P. (or equivalent) examination results and interviews.
  - (b) Cases of tie in the Merit List shall be resolved on the basis of marks as per transcripts. In case of further tie, the marks secured in the final year of B.E., B.Arch./B.C.R.P. shall be the basis of selection.
- (iv) Applications for admission to Postgraduate studies shall be made in writing on the prescribed form obtainable from the National Bank of Pakistan, NED University Branch, and should be sent to the Chairman of Architecture and Planning Department, either by hand or by registered post. Any application received after the closing date may be rejected. Application and documents once received shall not be returned.
- (v) Selected candidates for admission to the course will be informed of their selection by notification. The names of all the selected candidates will be displayed on the University Notice Board as well as on departmental notice board.
- (vi) The selected candidates will be required to report to the Chairman of the Architecture and Planning Department for verification of their documents and payment of prescribed fees and complete the registration/enrolment documents within 7 days of the date of announcement of the admission notification.

- (vii) Candidates after registration will be assigned, on request, a Supervisor by the Chairman of the Architecture and Planning Department. The Supervisor will guide the students in the selection of courses, project and other matters related to the programme.
- (viii) The Vice-Chancellor shall be competent to cancel or withdraw the admission of any candidate after giving him a personal hearing.

#### **4.5 Medium of Instruction**

Instruction in all courses and laboratories will be carried out in English language. Foreign applicants shall be required to satisfy the Architecture and Planning Department of their proficiency in English language before registration. Department of Humanities may conduct the required test on request of the Architecture and Planning Department.

#### **4.6 General Scheme of Studies**

- (i) The students shall have an option to enroll in the programme either for studies during daytime or during evening which ever is being offered by the department.
- (ii) The programme shall be conducted under Semester System.
- (iii) The minimum period of study for the daytime option is 3 semesters, one and a half years duration and a maximum of four years will be allowed for successful completion of all requirements for the Master degree.
- (iv) The minimum period of study for the evening option is 5 semesters, two and a half year's duration and a maximum of five years will be allowed for successful completion of all requirements for the Master's degree.
- (v) The student enrolled under day time option, whenever offered, will be required to complete a minimum of 27 credit hours of instructional course work followed by the submission of a project report based on an analytical and/or experimental work equivalent of 3 credit hours of course-work as prescribed by the department.
- (vi) The student enrolled under evening option will be required to complete a minimum of 30 credit hours of instructional course work.

#### **4.7 Duration of Course and Time Schedule**

- (i) There shall be two semesters in an academic year. Each semester will be of eighteen weeks duration. Out of this period, sixteen weeks shall be the actual teaching time. The rest of the two weeks will be utilized for the conduct of Examinations.
- (ii) A candidate will be allowed to take a maximum teaching load of 12 credit hours per semester if enrolled in day time programme and 6 credit hours per semester if enrolled in evening programme. There shall be a minimum of 48 lectures-hours in each course.

#### **4.8 Courses of Study**

- (i) A student will be required to study a minimum of courses totaling to 15 credit hours from the category of compulsory courses. Courses of 12 credit hours can be undertaken from the category of elective courses in consultation with Supervisor in order to complete the course work requirement of 27 credit hours, the project being equivalent to 3 credit hours of course work. In case of the Programme offered during the evening time, the candidates shall have to take courses of 15 credit hours in consultation with the Chairman.
- (ii) A student may take one postgraduate level course offered by Civil Engineering Department and/or Environmental Engineering Department with the approval of the Chairman.
- (iii) Those students who are found to possess deficiency in their academic background with respect to urban and regional planning, shall be assigned non-credit courses, to the maximum of 03, by the Department. These courses shall be undertaken by the student in the normal prescribed manner with a lecture hour input of three hours per week per course uptill the entire semester, however they shall not be credited towards their cumulative credit hour requirements of the graduate programme.

#### **4.9 General Regulations**

- (i) A student may elect to register in courses in a particular area of specialization, whenever so offered.
- (ii) A student with the consent of the supervisor may be allowed to change a course within seven days of the commencement of the course and/or withdraw from a course within ten weeks of the commencement of the semester. In each of these cases the student may make a request on prescribed forms.
- (iii) The courses of study for semester shall be as offered by the department.

#### **4.10 Transfer of Credit**

Credits earned for graduate study at other Universities may be applied towards M.U.R.P. degree at the time of application for admission. Only credit hours associated with graduate courses for which grades of B or better were obtained will be eligible for transfer. A maximum of 6 credit hours will be transferred from his major field of study after determining equivalency of courses. The department may agree to admit a transfer student only if the period of discontinuation of his studies does not exceed three years.

#### **4.11 Withdrawal from a Semester**

Permission to withdraw from a semester is given under exceptional circumstances like hospitalization for a long period. Intimations to the Department should be made within one month of the start of the semester. No refund of Registration fees will be made.

#### **4.12 Cancellation of Admission**

The admission of a student enrolled in the programme will be cancelled under the following circumstances:

- (a) If the student does not attend classes without any official withdrawal.
- (b) If the student is involved in any serious in-discipline.
- (c) If a student fails to make up the deficiency in courses.
- (d) If a student fails to register in a semester.

#### **4.13 Withdrawal from Programme**

A student, who is unable to continue his/her studies due to unavoidable circumstances on his/her part, should file an application for withdrawal from the programme. This application is essential for re-admission in the programme.

#### **4.14 Re-admission in the Programme**

A student who has officially withdrawn from the programme may apply for re-admission, if the period of absence is not more than two years. For absence of more than two years, the student shall have to apply for fresh admission. A student whose admission has been cancelled shall have to apply for fresh admission.

#### **4.15 Withdrawal from a Course**

A student may withdraw from any course with the consent of the course instructor within four weeks of the commencement of the class. The Course fee will not be refunded in case of such withdrawal. A formal application has to be filed in this respect. A grade of 'W' will be assigned in case of such withdrawal.

#### **4.16 Non-Appearance in Examination**

All students who fail to appear in any examination due to extraordinary circumstances should file an application giving valid reasons to the Chairman of the Architecture and Planning Department within 4 days of examination date. Such students will be allowed to take the examination in the course when it is offered. The student shall have to however attend the same course at the discretion of the concerned teacher. A letter grade of 'I' will be assigned in such cases.

#### **4.17 Grade Point Average**

- (i) The following grades with the equivalent marks (%) and grade points as shown below shall be awarded to the students on the basis of their performance in each course of study.

<i>Grade</i>	<i>Grade Point</i>	<i>Marks (%)</i>	<i>Remarks</i>
A	4	85-100	Excellent

B	3	70-84	Good
C	2	60-69	Fair
D	1	50-59	Pass
F	0	Below 50	Fail
I	-	--	Incomplete
W	-	--	Withdrawn

Project shall be graded as R ... Requirement fulfilled and a student shall earn an equivalent of three credit hours.

- (ii) Academic performance shall be determined on the basis of grade point averages. The grade points earned by a student in each course shall be calculated by multiplying the course credits by the points obtained. The cumulative grade point shall be calculated by adding all the grade points of the course offered in various semesters. The cumulative grade point shall then be calculated by dividing the total grade point earned by the total course credits. The minimum CGPA for qualifying for award of degree shall be 2.75.

#### 4.18 Class Attendance

The students shall be expected to attend the classes regularly and submit the home-assignment when due. A candidate with less than 75 percent attendance shall not be allowed to take the final examination in a course.

#### 4.19 Examinations

- (i) There shall be a final examination at the end of semester to be conducted by the Controller of Examinations. The panel of examiners, **one for each course**, shall be suggested by the Board of Studies of the department and approved by the competent authority.
- (ii) The numerical weightage for final examination will be 70 percent for theory examination of each course. 30 percent numerical weightage will be assigned to midterm/tutorial/practical conducted by course teacher.
- (iii) Periodic tests and home-assignments shall be given during each semester. The teachers concerned in consultation with the Chairman of the Department may decide the number of these tests and home assignments.
- (iv) A student who does not maintain the minimum grade point average of 2.75 during his/her studies may be required to repeat those major courses of his/her area of specialization in which he/she has obtained a C or D grade. The student shall be given only one chance to improve his grade in the course with C or D grade. In case he/she has obtained a C or D grade in courses of minor area, he/she shall be required to take alternate course or courses in order to attain the grade point average of 2.75. The student will be given one year to makeup the deficiency.

- (v) There shall be an examination conducted by a panel of 3 examiners, at least one External in defense of the Project. A candidate, failing to satisfy the examiners, will be allowed to improve his work and resubmit it within 18 weeks.
- (vi) A student who obtains an 'F' in a course will be asked by the Chairman to leave the post graduate programme in view of his/her low probability for successfully fulfilling all requirements of the degree. The concerned student may however petition provided his/her minimum CGPA is 2.0. If the petition is entertained, the concerned student may continue the enrolment in the programme. He/She may repeat the course in which he/she was graded 'F'.

#### **4.20 Award of Degree**

A student who has satisfactorily completed course work of atleast 30 credits obtaining a CGPA of 2.75 or above and fulfilling all other requirements as prescribed, will be eligible for the award of the degree of Master of Urban and Regional Planning.

#### **4.21 General Provision**

Regulations and rules of the undergraduate programme shall not be applicable to the Post-Graduate programme unless otherwise specified by an appropriate authority.

### **5. COMPLETE LIST OF COURSE FOR THE PROGRAMME**

#### **5.1 List of Courses for the Masters Programme in Urban and Regional Planning**

##### **Non-Credit Courses**

AR-511:	Introduction to Urban Design	Non-Credit
AR-512:	Introduction to Urban Sociology	Non-Credit
AR-513:	Methods in Physical Planning	Non-Credit
AR-514:	Introduction to Urban Economics	Non-Credit
AR-515:	Introduction to Transportation and Infrastructure	Non-Credit
AR-516:	Basic Communication Techniques in Planning	Non-Credit

##### **5.1.1 Compulsory Courses**

		Credit Hours
AR-611:	Planning Theory	3
AR-612:	Methods in Urban Planning Research	3
AR-613:	Landuse Planning and Analysis	3
AR-614:	Infrastructure Planning	3
AR-615:	Economic Development and Regional Planning	3
AR-633:	Independent Study Project	3

### 5.1.2. Elective Courses

AR-616:	Urbanism: Theory and Practice	3
AR-617:	Advanced Studies in Urban Design	3
AR-618:	Urban Area Conservation	3
CE-561:	Urban Transportation Planning*	3
AR-619:	Legal and Regulatory Aspects in Planning	3
AR-620:	Planning Implementation Methods	3
AR-621:	Advanced Urban Economics	3
AR-622:	Seminar in Planning, Economics and Development	3
AR-623:	Computer Applications in Planning	3
AR-624:	Real Estate Analysis	3
AR-625:	Statistical Methods in Planning	3
AR-626:	Remote Sensing	3
AR-627:	Advanced Studies in Housing	3
AR-628:	Urban Management and Administration	3
AR-629:	Advanced Urban Sociology	3
AR-630:	Project Planning and Management	3
AR-631:	Development Planning in Pakistan	3
AR-632:	Seminar in Urban Management in Pakistan	3
AR-634:	Planning for Sustainable Development	3

### 5.2 Detailed Contents of Courses for the Masters Programme in Urban and Regional Planning

#### Non-Credit Courses

##### **AR-511: Introduction to Urban Design**

Definition of city and city systems; urban development patterns; introduction to urban functions and corresponding physical forms; introduction to urban design; visual analysis of the city; basic aesthetic considerations.

##### **AR-512: Introduction to Urban Sociology**

Introduction to sociological process and theories; socio-economic aspects of the society; sociological variables in urban environment; demographic, ecological and social structure of city; class structure of cities in reference to residential differentiation.

##### **AR-513: Methods in Physical Planning**

Concepts and terminologies in physical planning; scales and graphical representations; mapping and drawing techniques in planning; sketching and drafting; analysis and design of different components of urban environment.

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\* Offered by Civil Engineering Department.

**AR-514: Introduction to Urban Economics**

Concepts and terminology; macro and microeconomics and its application to urban problems; demand, supply and need; theory of production and cost; pricing and employment of resources; general equilibrium and welfare economics.

**AR-515: Introduction to Transportation and Infrastructure**

Evolution and development of urban transport system; types, formats and categories of urban transport systems; basic analysis of urban transport systems; introduction to physical and social infrastructure; basic aspects in planning and development of infrastructure.

**AR-516: Basic Communication Techniques in Planning**

Basics in communication; types of communication; characteristics of verbal/oral communication; written and textual communication; graphical and visual communication; introduction to commonly applicable techniques in communication.

**5.2.1 Compulsory Courses**

**AR-611: Planning Theory**

The origins of theory – what is theory? The limitations of theory. The theory – reality conflict concepts and functions of planning types; interrelations; public expenditure decisions; planning theories and interpretations; models of rational choice; decision environment; policy design; programming techniques and strategies; issues in goal setting; issues in projections and evaluations.

**AR-612: Methods in Urban Planning Research**

The process of establishing a context. Information types and its usages in planning process; physical, social and economic context and its interpretation; analytical tools and utilization; trend studies; synthesization of results; correlation of analytical tools and societal understanding; case studies. The conflict between perception, statistics and its resolution. The role and limitation of assumption.

**AR-613: Landuse Planning and Analysis**

Land and landuse; types of landuse; relationship of land use with physical and social infrastructure, landuse changes-causes, effects and outcomes; methods of landuse analysis, case studies. Segregated and integrated landuse.

**AR-614: Infrastructure Planning**

Types of infrastructure; physical, social and institutional infrastructure; assessment of infrastructural requirements in various territorial and socio-economic contexts; need analysis for infrastructural planning; pre-requisites to infrastructural planning; spatial considerations in infrastructural planning; collaborations; partnerships and input of formal and informal sector in infrastructure planning; case studies. Integrating informally planned infrastructure within a larger plan.

**AR-615: Economic Development and Regional Planning**

Meaning of development in different economic theories; focal issues in development economics; unbalanced and balanced growth; planned and unplanned development; income distribution; labour market; development planning and national plans; regional growth theories. Regional planning and ecological issues.

**AR-633: Independent Study Project**

Individually directed study in urban and regional planning studies. Project must be approved by the faculty incharge prior to registration for the course. Written report and presentation of a Department Seminar based on the topic studied are required at the end of the semester.

**5.2.2 Elective Courses**

**AR-616: Urbanism: Theory and Practice**

Concepts and definitions; frameworks for understanding theories and interpretations; ingredients and characteristics of urbanism; experience and communications; comparative studies; practice and applications. Integrating unplanned development.

**AR-617: Advanced Studies in Urban Design**

Theoretical contributions to urban design; initiatives for conscious efforts to organise urban system and its limitations; relationship between physical form and social structure; emerging concepts in urban space design; approaches to urban design projects; case studies. Technology its potentials and limitations.

**AR-618: Urban Area Conservation**

Terminologies in conservation; conservation, restoration, renovation, refurbishment, re-construction/re-development, historic preservation, restitution and related concepts; aesthetic, cultural, economic and technical issues in conservation; legal and administrative aspects of urban area conservation; historically significant buildings/built complexes and precincts. Conservation and its relationship to the process of urban change and evolution.

**CE-561: Urban Transportation Planning**

Coordination of City Planning and Transportation Planning. Trip generation, trip distribution, modal split, trip assignment models. Preparing landuse cum transport plans. Economic evaluation. Urban travel Characteristics and trends in travel demand. Basic urban transportation studies i.e. origin destination surveys. Inventory use studies, parking studies and transit surveys. Pedestrian facilities. Light Rail and Mass Rapid Transit

**AR-619: Legal and Regulatory Aspects in Planning**

Legal and regulatory concepts; legislative, judicial and administrative structure in relation to planning; urban planning process in relation to local, provincial and federal governments; planning and development laws, regulations and byelaws; issues in implementation and enforcement; critical analysis of planning and development laws and regulations and their application.

**AR-620: Planning Implementation Methods**

Types of planning; planning outputs; development proposals; programmes and projects; institutional methods, processes and procedures related to programme and project implementation; analysis of implementation modes; alternatives, case examples and best practices. BoT, international tendering.

**AR-621: Advanced Urban Economics**

Economic theory and purposes of economic planning; the evaluation and functions of urban planning in market economics; formation and distribution of value in the physical environment; approaches to rent theory and measurement of value in urban land and property; approaches in the explanation of basic urban processes; the nature and functioning of the construction industry; behavioural patterns in property markets; development of urban land; re-development and rehabilitation; urban growth and structural change. The politics of urban economics (how also geo-politics and global politics) and its physical, cultural and some repercussions.

**AR-622: Seminar in Planning, Economics and Development**

This course shall focus on the contemporary planning process in relation to economics and developmental issues. Students shall be encouraged to select topics related to planning, economics and development and study the said topic thoroughly. Thereafter they shall prepare a presentation as part of their sessional work under the supervision of the course teacher.

**AR-623: Computer Applications in Planning**

Data base management in planning process; data requirements generation and assessment; computer applications related to operational issues in planning; spread sheets; charts; diagrammatics in planning representations; assessment and application of software and hardware requirements in planning process. Geographic variables in planning; attributes and parameters; plotting of information on maps, plans and details; softwares and packages of geographic information systems; data storage and retrieval modes; concept and logic of map interfaces and overlays; planning analysis and representations using GIS modes.

**AR-624: Real Estate Analysis**

Concepts and terminology in urban property systems; property valuation criteria; land value analysis; threshold analysis for land and real estate projects/programme; modalities in real estate development; contractual options in real estate including BOO, BOT, BOOT; financing mechanisms; mitigating techniques in real estate; data base creation and management.

**AR-625: Statistical Methods in Planning**

Data and its types (physical, social and economic attributes); data review and quality evaluation; sampling distribution; sample drawing techniques; estimation of means, variances, differences and proportions in demographic data; design of experiments/data collection, processing and interpretation exercises.

**AR-626: Remote Sensing**

Concepts and terminology; tools employed in remote sensing; layers of information; parameters in remote sensing; applicational aspects of remote sensing in the domains of ecological zones, specialized terrains and territories; interface with satellite imagery.

**AR-627: Advanced Studies in Housing**

Concepts and terminology; housing need, demand and supply; formal and informal housing; provision and management of housing by the public, formal private, informal private and cooperative sector; physical planning principles of housing; housing finance and credit mechanisms; housing in relation to community development; evictions, its causes and effects. The land issue (tenure, transparency, land use applications, the conflict between standards, byelaws and social and economic reality).

**AR-628: Urban Management and Administration**

Macro administrative structure related to urban and regional planning; institutions and organizations; institutional process; distribution of legal, administrative and managerial responsibilities; institution of planning; skills and techniques in urban administration; comparative studies leading to focused analysis.

**AR-629: Advanced Urban Sociology**

Evolution and development of urban societies; urban institutions; relationship between trade/industrialization and urbanization; urbanization in the developing world; employment, opportunities and social relations; rural-urban and urban-urban migrations; emerging social structure in cities; sociological issues in contemporary urban settlements; globalization and its impacts on urban societies.

**AR-630: Project Planning and Management**

Principles of project planning; models in project management; cost analysis; cost and resource allocation/disbursement; use of simulation techniques in project scheduling; project control; revision and verification techniques; computer applications in project management. Project planning and management and un-relationship to interest groups, communities and donors).

**AR-631: Development Planning in Pakistan**

Background of development planning in Pakistan; review of five year plans; sectoral planning; planning institutions institutional process in development planning and its dynamics; analysis of development planning process in Pakistan.

**AR-632: Seminar in Urban Management in Pakistan**

The course is designed as a seminar focused on the selected contemporary topics in urban management. The objective of this course is to concentrate the student's understanding on different urban management issues in Pakistan. Current urban management problems of Pakistani cities shall be examined and evaluated by employing the framework developed by various theories. Relevance and validity of different paradigms shall be tested in this context. Politics of urban spatial structures, service provision, land

ownership, social movements and planning shall be dealt in the proceedings of the course.

**AR-634: Planning for Sustainable Development**

Terminologies related to sustainability; sustainability in relation to social, economic and geo-physical perspectives; growth in correspondence to sustainability; poverty and environmental degradation; resource management and conservation; technology and financial transactions; international and inter-generational equity.

**6. NUMBER OF SEATS TO BE OFFERED FOR ADMISSION TO THE PROGRAMME**

Total number of seat to the maximum of shall be 25 offered by the department. The maximum number of admissions to be offered to candidates from any of the disciplines of Architecture, Urban Planning, Urban or Civil Engineering shall not exceed a total of 10 per discipline.

**7. UNIVERSITY FEES AND DEPOSITS**

The following are the University fees payable each semester.

(a)	Admission fee (to be paid once)	Rs. 1,000.00	
(b)	Tuition fee per course	Rs. 4,500.00	or as may be prescribed from time to time.
(c)	Library fee	Rs. 100.00	
(d)	Examination fee per course	Rs. 200.00	
(e)	Enrolment fee (to be paid once)	Rs. 200.00	
(f)	Registration fee	Rs. 100.00	
(g)	Late fee (per week)	Rs. 100.00	
	Maximum	Rs. 500.00	
(h)	Equivalence fee if applicable	Rs. 150.00	
(i)	Security deposit (to be paid once)	Rs. 500.00	
(j)	Internet fee (once at the time of admission)	Rs. 500.00	

**8. ASSISTANTSHIPS**

Teaching and Research Assistantships will be awarded to suitable students who may be willing to teach the undergraduate classes and carry out research during the normal working hours of the University. The rates of remuneration will be decided on the basis of the work load assigned to the student.

## **9. UNIVERSITY TRANSPORT**

University buses ply regularly between the Campus and the City from 08.00 a.m. to 09.00 p.m. according to a fixed time schedule. Public transport is also available.