

Rules and Regulations for Postgraduate Programs

Ordinance for Master's Degree Programme

1. Degrees Offered

The Masters degrees to be offered under this Ordinance are as follows:

1.1

Master of Urban & Regional abbreviated as MURP
Planning by Course and thesis

Master of Urban & Regional abbreviated as MURP
Planning by Courses and project

2. Admission Requirements

2.1 For admission to the courses leading to a Master's degree (MURP) an applicant

(a) must have a minimum GPA of 3.50 out of 5.00 or a first division or equivalent in any one of S. S. C and H. S. C or in equivalent examinations and must not have a GPA less than 2.00 out of 5.00 or a third division or equivalent in any of the aforementioned examinations.

(b) must have at least 50% marks or a minimum GPA of 2.50 out of 4.0 or its equivalent in B. Sc. Engg. / M. A or M. Sc. or MSS / B. Arch. / BURP in the relevant branch.

(c) Specific requirements for different departments and institutes are spelt out in the following sections.

2.2 For admission to the courses leading to the degree of MURP an applicant must have either a Bachelor's degree in Urban and Regional Planning / Architecture / Engineering / Agricultural Economics or a four-year degree in Mathematics / Statistics / Physics / Public Administration / Sociology / Social Work / Geography / Economics or its equivalent from any recognized institution.

OR

Master's degree with Honours in Mathematics / Statistics/ Physics / Public Administration / Sociology / Social Welfare / Social Work / Geography / Economics or its equivalent from any recognized institution. An applicant not having an Honours degree should have a first class in the Master's degree.

3. Admission and Registration Procedures

3.1 Applications for admission to the above courses shall be invited through regular means of advertisement and shall be received by the Registrar.

3.2 Before being finally selected for admission a candidate may be required to appear at an oral and / or written test by a Selection Committee as constituted by the BPGS. He/She will be required to take pre-requisite courses as may be prescribed by the Selection Committee. Every selected candidate, unless he/she has already been registered, shall get himself/herself registered with the University.

3.3 After admission each student shall be assigned, by the relevant BPGS, an Adviser from among the teachers of the Department / Institute not below the rank of an Assistant Professor. In advance of each enrolment and course registration for any semester, the Adviser or Supervisor (as appointed by Art. 8.1 & 9.1 of this ordinance) shall check and approve his/her student's schedule for subjects, pre-requisites as recommended by the Selection Committee and the total hours. The student is expected to consult his/her Adviser/Supervisor on all academic matters but, it is the responsibility of the individual student to see that his/her schedule conforms to the academic regulations.

3.4 Every registered student shall get himself enrolled on payment of prescribed fees and other dues as per the University rules before the commencement of each semester. In an academic year there will normally be two semesters. All course registration must be completed within two weeks from the start of a semester, otherwise, the student shall not be allowed to continue the course in that semester.

3.5 On the recommendation of the appropriate BPGS and CASR the rules for admission into the University for post graduate studies shall be framed from time to time by the Academic Council. CASR on its own may, if it deems fit, recommend such rules for admission for approval of the Academic Council.

4. Academic Requirements and Regulations

4.1 The minimum duration of MURP shall be three semesters but four semesters for MURP students not having BURP or equivalent degree. A candidate for the Master's degree must complete all the requirements for the degree within five academic years (Session) from the date of the first admission in the respective programme.

4.2 Academic progress shall be measured in terms of credit hours earned by a student. One credit hour subject shall normally require 14 hours of lecture for

one semester; while one credit hour for thesis/project should normally require 42 hours of work for one semester. The number of credit hours for each subject shall be as specified in the syllabus of the respective department.

4.3 The credit hour requirement for the Masters Program shall be as follows:

4.3.1 For the degree of MURP (by course and thesis) a student must earn a minimum of 36 credit hours (48 credit hours for students not having BURP or equivalent degree) including a thesis for which 18 credit hours shall be assigned.

For the degree of MURP (by course and project) a student must earn a minimum of 36 credit hours (48 credit hours for students not having BURP or equivalent degree) including a project for which 6 credit hours shall be assigned.

4.3.2 In MURP programme (either by course and thesis or by course and project) a student not having a 4-year Bachelor's degree in URP (or equivalent) must undertake an extra 12 credit hours of courses and other non-credit courses as determined by the BPGS of the department.

4.4 There shall be two categories of students, namely, full-time students and part-time students.

4.4.1 A student may enroll as a part-time student. Students, serving in different organizations, may also be admitted as part time students with the written consent of the employer. A part time student may be assigned a maximum of 9 credit hours of course including thesis/ project work in any semester.

4.4.2 Full time students must register for a minimum of 12 credit hours and a maximum of 15 credit hours per semester. A full time student shall not be allowed to be in the employment of any organization (even as a part time employee). However, they may be employed as teaching/ research assistant at the University. If a full time student becomes an employee (full time or part time) of any other organization in the middle of a semester, he/she may, with the approval of the Head of the Department and his/her Employer, be allowed to continue as a full time student for that semester.

4.4.3 A student may be allowed to switch from part-time to full-time or vice versa on the recommendation of the respective BPGS before the commencement of a semester.

4.5 The courses of study in different departments shall be as recommended by the respective BPGS and the Faculty / CASR and approved by the Academic Council. The BPGS may review the curriculum from time to time and recommend any changes as may be considered necessary. The courses to be offered in any semester shall also be as determined by the relevant BPGS.

4.6 A student on the recommendation of the relevant BPGS and as approved by the CASR may be allowed to transfer a maximum of 9.0 credits of the courses completed by the student at a recognized institution provided that the courses were not taken earlier than five calendar years from the date of his/her first enrolment in the respective programme at BUET and that the student obtained a minimum GPA of 3.0 out of 4.0 or its equivalent in such courses and that the courses are equivalent to the approved courses of BUET.

5. Grading system

5.1 Final grades for courses shall be recorded as follows:

Grading system

Grade	Merit Description	Numerical points	Markings
A+	Excellent	4.0	90% and above
A	Very good	3.5	80% to below 90%
B+	Good	3.0	70% to below 80%
B	Average	2.5	60% to below 70%
C	Pass	2.0	50% to below 60%
F*	Failure	-	Below 50%
I**	Incomplete	-	
S or U	Satisfactory or unsatisfactory (for non-credit course)		
W	Withdrawn from course		

*Subject in which the student gets F grades shall not be counted towards credit hour requirements and for the calculation of Grade Point Average (G.P.A.).

**Given only when a student is unable to complete the course because of circumstances beyond his control, it must be made up by the close of two semesters or the incomplete grade becomes a failure. He may, however, be allowed to register without further payment of tuition for that course.

5.2 Courses in which the student gets F grades shall not be counted towards credit hour requirements and for the calculation of Grade Point Average (GPA)

5.2.1 The C grades, up to a maximum of two courses, may be ignored for calculation of GPA at the written request of the student to the Head of the Department / Director of the Institute on the recommendation of the supervisor / Advisor, provided that the student has fulfilled the total course credit hour requirement in the remaining subjects with a minimum GPA of 2.75.

5.2.2 When a course is repeated for improvement, better grade shall be counted for calculation of GPA

5.2.3 Performance in all the subjects including all the F grades shall be reflected in the transcript.

5.3 Grade I is given only when a student is unable to sit for the examination of a course at the end of the semester because of circumstances beyond his/her control. He/She must apply to the Head of the Department within one week after the examination to get an I grade in that course. It must be completed within the next two semesters, otherwise, the I becomes an F grade. He/She may, however, be allowed to register without further payment of tuition fees for that course.

5.4 Satisfactory or Unsatisfactory- used only as final grades for thesis/project and non-credit courses. Grade for thesis/ project “In Progress” shall be so recorded. If, however, thesis / project is discontinued and I grade shall be recorded.

5.5 Students may enroll for non-credit course(s) termed as audit course(s) on recommendation of his/her thesis / project Supervisor and Head of the Department.

5.6 A student shall withdraw officially from a course within two working weeks of the commencement of the semester or else his grade in that course shall be recorded as F unless he/she is eligible to get a grade of I. A student may be permitted to withdraw and change his/her course within the specified period with the approval of his/her Adviser, Head of the Department and the respective teacher(s) concerned. (In that case his / her grade in the courses

registered shall be recorded as ‘W’ in his Academic Record but shall not be reflected in the transcript.)

6. Conduct of Examination

6.1 In addition to tests, assignments and/ or examinations during the semester as may be given by the teacher(s) concerned, there shall be a written examination and / or other tests for each of the subjects offered in a semester at the end of that semester, the dates of which shall be announced by the Controller of Examinations, BUET as advised by Dean of the respective Faculty at least two weeks before the commencement of the examination. The final grade in a subject shall be based on the performance in all tests, assignments and / or examinations.

6.2 The Controller of Examinations shall keep upto-date record of all the grades obtained by a student in individual Academic Record Card. Grades shall be announced by the Controller of Examinations at the end of each semester. In addition, each student is entitled to one official transcript of the University record at the completion of his academic programme from the office of the Controller of Examinations on production of statement of clearance from all departments/ institutes/offices.

6.3 The BPGS of a department shall recommend the names of the paper setters and examiners for the semester examinations at least two weeks before the date of commencement of the examination to the Vice-Chancellor for approval.

7. Qualifying Requirements

7.1 The qualifying requirement for graduation is that a student must earn a minimum grade point of 2.65 based on the weighted average in his course work.

7.1.1 Two courses may be repeated for improvement with the prior approval of the Head of the Department on the recommendation of the Supervisor/ Advisor. Such approval shall be reported to the BPGS.

7.1.2 A student obtaining F grade in a course may be allowed to repeat the course with the prior approval of Head of the Department on the recommendation of the Supervisor / Advisor. Such approval shall be reported to the BPGS.

7.2 A student shall not be allowed to continue the programme if he/she obtains a total of three or more F grades in one or more than one subjects taken together, during the course of his / her studies.

7.3 If at the end of the second or any subsequent semester, the cumulative GPA falls below 2.5 he/she shall not be allowed to continue in the programme.

7.4 In addition to successful completion of course works every student shall submit a thesis on his research work or a report on his/her project work, fulfilling the requirements as detailed in the following sections.

8. Thesis

8.1 Research work for a thesis shall be carried out under the supervision of a full-time member of the staff belonging to the department. However, in special cases, a full-time member of the staff belonging to a department / institute/centre outside the student's department of the University may be appointed as Supervisor, if the research content of the thesis is within the field of specialisation of the member of the staff. A Co-supervisor from within or outside the department may be appointed, if necessary. The thesis proposal of a student shall be submitted for approval of the CASR on the recommendation of the relevant BPGS after completion of at least 12 credit hours of course work.

8.2 If any change is necessary of the approved thesis (title, content, cost, Supervisor, Co-supervisor etc.) it shall be approved by the CASR on recommendation of the relevant BPGS.

8.3 The research work must be carried out in this University or at a place(s) recommended by the BPGS. The work schedule and financial involvement should be mentioned in the research proposal for carrying out research work outside the university.

8.4 Every student shall submit to the Head of the Department, through his/her Supervisor, required number of type written copies of his/her thesis in the approved format (as given in Appendix I) on or before a date to be fixed by the Supervisor concerned in consultation with the Head of the Department.

8.5 The student shall certify (as given in Appendix-II) that the research work was done by him/her and that this work has not been submitted elsewhere for the award of any other diploma or degree.

8.6 The thesis should demonstrate an evidence of satisfactory knowledge in the field of research undertaken by the student.

8.7 Every student submitting a thesis in partial fulfillment of the requirements of a degree, shall be required to appear at an oral examination, on a date or dates fixed by the Supervisor concerned in consultation with the Head of the Department and must satisfy the examiners that he/she is capable of intelligently applying the results of this research to the solution of problems, of undertaking independent work, and also afford evidence of satisfactory knowledge related to the theory and technique used in his/her research work

8.8 Examination Board

8.8.1 An Examination Board for every student for thesis and oral examination shall be approved by the CASR on recommendation of the thesis Supervisor in consultation with the Head of the Department. The Supervisor shall act as the Chairman and the Head of the Department will be an ex-officio member of the Examination Board. The Board shall consist of at least four members including the Head of the Department and the Supervisor. The Examination Board shall be constituted as follows:

(i) Supervisor	Chairman
(ii) Co-supervisor (if any)	Member
(iii) Head of the Department (Ex-officio)	Member
(iv) One or two members from within the Department	Member
(v) One external member from outside the student's Department	Member (External)

8.8.2 If any examiner is unable to accept the appointment or has to relinquish his/her appointment before the examination, the Vice-Chancellor shall appoint another examiner in his/her place, on suggestion from the Supervisor in consultation with the Head of the department. This appointment will be reported to the CASR.

8.8.3 In case a student fails to satisfy the Examination Board in thesis and /or oral examination, the student shall be given one more chance to resubmit the thesis and/or appear in oral examination as recommended by the Board.

9. Project

9.1 Project work shall be carried out under the supervision of a full-time member of the staff belonging to the relevant Department. However, in special cases, a full-time member of the staff belonging to a Department / Institute / centre outside the student's relevant Department of the University may be appointed as Supervisor, if the research content of the project work is within the field of specialisation of the member of the staff. The title of the project, cost and the Supervisor shall be recommended by the BPGS for approval of the Vice-Chancellor. This approval will be reported to the CASR.

9.2 If any change is necessary of the approved project (title, content, cost, Supervisor etc.) it shall be approved by the Vice-Chancellor on the recommendation of the relevant BPGS. This approval will be reported to the CASR.

9.3 The project work must be carried out in this University or at a place approved by the Vice-Chancellor on recommendation of the Supervisor in consultation with the Head of the Department. The work schedule and financial involvement should be mentioned in the project proposal for carrying out project work outside the university.

9.4 Every student shall submit to the Head of the Department, through his/her Supervisor, required number of type written copies of his/her project report in the approved format (As given in Appendix- I) on or before a date to be fixed by the Supervisor concerned in consultation with the Head of the Department.

9.5 The student shall certify (as given in Appendix-II) that the research work was done by him/hers and that this work has not been submitted elsewhere for the award of any other diploma or degree.

9.6 Every student submitting a project report in partial fulfillment of the requirement of a degree shall be required to appear at an oral examination, on a date or dates fixed by the Supervisor concerned in consultation with the Head of the Department and must satisfy the examiners that he/she has gained satisfactory knowledge related to the project work.

9.7. Examination Board

9.7.1 An Examination Board for every student for the project and oral examination shall consist of at least three members including the Supervisor. The Supervisor shall act as the Chairman. The BPGS shall recommend the names of the examiners for approval of the Vice-Chancellor. This approval

will be reported to the CASR. The Examination Board shall be constituted as follows:

(i.) Supervisor	Chairman
(ii.) One member from within the Department	Member
(iii) One member from within or outside the Department	Member

9.7.2 If any examiner is unable to accept the appointment or has to relinquish his/her appointment before the examination the Vice-Chancellor shall appoint another examiner in his/her place on the recommendation of the relevant BPGS. This appointment will be reported to the CASR.

9.7.3 In case a student fails to satisfy the Examination Board in project report and /or oral examination, the student shall be given one more chance to resubmit the project report and/or appear in oral examination as recommended by the Board.

10 Striking off and removal of names from the rolls

The name of the student shall be struck off and / or removed from the rolls of the University on the following grounds:

(i) Non-payment of dues within prescribed period. Post graduate students residing in the halls of residence shall be subject to the same conditions as allowed in the Ordinance Relating to the Board of Residence and Discipline.

(ii) Failing to proceed with the programme by the exercise of the Art. 4.1 or 7.2 or 7.3 of this Ordinance.

(iii) Failing to make satisfactory progress in his/her programme as reported by the supervisor through the BPGS and approved by CASR.

(iv) Forced to discontinue his/her studies by the Board of Residence and Discipline.

(v) Withdrawn officially from all the courses and / or thesis/project.

11 Academic fees

Items of Academic fees shall be as per Appendix III, and these fees shall be reviewed and recommended from time to time by the Academic Council.

12 Refund of Fees

A student withdrawing officially from all courses and / or thesis/project as per Art. 10(v) is entitled to get a refund of 50% of the course registration fees provided he / she withdraws in writing through the respective Head of the Department before the expiry of two working weeks from the commencement of the classes. Thesis / project registration fees in any case are not refundable.

Post –graduate program

T: lecture hours per week

S: studio or sessional hours per week

C: number of credits respectively

COURSE	TITLE	T	S	C
Plan 6000	Thesis	18 credits		
Plan 6001	Human Settlement and Land Economics	2	0	2
Plan 6002	Economics for Planners	2	0	2
Plan 6003	Planning Process and Theories	2	0	2
Plan 6004	Urban Planning -I	2	0	2
Plan 6005	Rural Development Planning-I	2	0	2
Plan 6006	Regional Planning	2	0	2
Plan 6007	Quantitative Techniques in Planning Analysis - I	2	0	2
Plan 6008	Transportation Planning	2	0	2
Plan 6009	Housing and Community development	2	0	2
Plan 6010	Planning Administration Implementation & Management Process-I	2	0	2
Plan 6011	Project Evaluation and Management Techniques	1	3	2
Plan 6012	Seminar on Special Problems in Planning and Development - I	2	0	2
Plan 650 I	Graphic Representation and Surveying Techniques (Non credit prerequisite course)	2	0	2
Plan 6125	Disaster Management and Planning	3	0	3
Plan 6107	GIS Applications in Urban and Regional Planning	3	0	3
Plan 6115	Studio: GIS Application in Urban and Regional planning		4	2
Plan 6020	Project	6 credits		

Division - I: Urban Planning and Housing				
Plan 6101	Urban Planning - II	2	0	2
Plan 6102	Urban Design	2	0	2
Plan 6103	Housing and Site Planning	2	0	2
Plan 6104	Physical Infrastructure Planning (Urban & Rural)	2	0	2
Plan 6105	Planning administration Implementation and management Process II	2	0	2
Plan 6106	Low-Income Housing and Settlement	2	0	2
Plan 6108	System Analysis in Urban and Regional Planning	2	0	2
Plan 6109	Quantitative Technique in Planning Analysis II	0	6	2
Plan 6110	Special Studies	2	0	2
Plan 6113	Studio: Urban Planning Technique	0	6	2
Plan 6114	Studio: Housing and Area Planning	0	6	2
Division -II: Regional and Rural Planning				
Plan 6120	Regional Development Planning and Resource Use	2	0	2
Plan 6121	Rural Development Planning II	2	0	2
Plan 6122	Economics of Population Growth	2	0	2
Plan 6123	Studio: Regional Planning Technique	0	6	2
Plan 6124	Studio: Rural Planning Technique	0	6	2
Division -III: Development Planning				
Plan 6130	Urban and Regional Economics	2	0	2
Plan 6131	Public Finance in Underdeveloped Countries	2	0	2
Plan 6132	Rural/Agricultural Development	2	0	2
Plan 6133	Agriculture in Economic Development	2	0	2
Plan 6134	Economic Development	2	0	2

Outline of Post-graduate courses

Plan 6000: Thesis 18 credits

Independent study supplemented by frequent conferences with staff members.

Plan 6001: Human Settlement and Land Economics

Factors determining the nature, form and character of human settlements in different historical periods. Human ecological process. Basic concepts and theories of urban ecology; ecology and changing spatial pattern, theories of urban growth, structure and landuse pattern. The rural urban fringe. The size, distribution, spacing and historical orders of urban settlements. Economics of urbanization.

Space and the context of land and land economics; components of urban and rural land use; physical, economic and institutional characteristics of urban land. Urban land-income, value and price. Determinants of urban land value and use. Imperfections in urban land market and planning policies. Rural land use market, pricing and use.

Plan 6002: Economics for Planners

Concern of economics, e.g.; resources and wants, economics for planners, the need, nature and type of economic analysis viz., market mechanism, micro vs macro economics. Theory of consumer's demand. Theory of production, scale of production, internal/external economies/diseconomies production function, returns to scale, efficiency of resource allocation and product pricing under different market situations. Nature of cost and cost curves. Theory of distribution, e.g. rent for land, wages for labour, interest for capital and profit. Macro-economics, national income, theory of income and employment. Welfare economics, economics of environment externality; international trade, public finance, budget, and municipal finance.

Plan 6003: Planning Process and Theories

Fundamental aspects of planning as a general human endeavour-planning as a subject of study and as professional activity; considerations of the need for planning and possible scope of

planning activity; The role of urban and regional planning and its relationship with the general theory and process of planning; urban and regional planning at the local and strategic levels; practical limitations and typical practice dilemmas, their causes and possible resolutions; gradual development of ideas and concepts towards a standard body of planning knowledge and doctrine.

Contemporary conceptions, methods and technique use in plan preparation, policy formulation and implementation in view of the requirements of planning as a continuous process; the plan making process; planning process and decision theory.

Plan 6004: Urban Planning-I

The shape, size and spatial structure of cities and towns. Component of urban land uses, residential, commercial, industrial recreational, institutional, urban periphery and circulation system, spatial organization of residential, commercial industrial and recreational areas, planning and design considerations for development and redevelopment of town centre, neighbourhood, open space and industrial estates.

Plan 6005: Rural Development Planning- 1

The meaning of rural development. Rural development and structural transformation-theory. The rural development in the 1950s in the Indian subcontinent: Bangladesh, India, Nepal. Sri Lanka. The rural development programs and projects in 1960s and 1970s-including international experiences. Rural development in Bangladesh context: co-operatives Comilla Model, Gram Sarker, Swanirvar movement etc. The role of planning Commission, Ministry of LGRD, IRDP, BADC, Jatiya Samabaya Bank, International Agencies. Development of rural infrastructure, institutions and services. Development of rural communities. Process of rural planning-issues and strategies.

Plan 6006: Regional Planning

Definition of region and regionalism. The nature of regions. The factors determining a region. The influence of natural and cultural elements on regional development; climate, topographical and geographical conditions, population, land use, agriculture,

industry, power and transportation, resource and soil conditions, city and region; urban and rural settlements; trends and characteristics of development. Regional economy and regional order. Economic development vs. regional growth. Regional distribution of public investment- dispersal vs. concentration; balance vs. imbalance; growth vs. welfare. Examination of resource endowment and regional growth. Export activities and residentiary activities. The economic base of cities; the basic and non-basic concept.

Plan 6007: Quantitative Techniques in Planning Analysis - I

Statistical data collection; presentation of data: Measures of central tendency and dispersion; Graphical representation of statistical facts: Elementary Probability; Probability density function and distribution. The Binomial Distribution. The Normal Distribution, The Chi-Square Distribution, Student's Distribution; Elements of sampling theory; Statistical Decision theory for large and small samples: Simple linear regression and correlation: Population project; Forecasting Techniques.

Introduction to Multivariate Analysis; Introduction to digital computation Fortran programming; Introduction of packages for planning analysis.

Plan 6008: Transportation Planning

Functional requirement and interrelationship of all means for the movement of people and goods as they affect the physical pattern of the community Characteristics of the different modes of transportation---road, rail, water and air; choice of mode of transportation; Modes of transportation in Bangladesh and scope of their future development; The problems of public transportation at national, regional and local levels (in Bangladesh) and considerations for their development; The transport planning process at urban and national level; roadway capacity; traffic management techniques;

Plan 6009: Housing and Community development

Definition of housing, - its influence on man, society and environment. Factors influencing housing situation. Evaluation of housing problems. General problems of housing in Bangladesh, -

specific problems of private enterprise, government and consumer; evaluation of social, economic, design, administrative and political problems. Housing policies in developed and developing countries, - policy goals, policy methods, strategies and policy instruments. Housing standards, house ownership, land values, taxation on house procreate. Finance for housing, - financing problems, sources of finance, mobilization of resource for housing. The role of housing in promoting social integration; social programming of housing in urban areas.

Plan 6010: Planning Administration, Implementation and Management Process - I

The organization and function of planning agencies at different levels of Government. The complex questions of inter-sectoral co-ordination both in planning and implementation. Aspects of implementation and institutional capability, - legal, financial, manpower and other legal aspects of planning.

Plan 6011: Project Evaluation and Management Techniques

Preparation of projects; purpose of project evaluation, economic versus financial evaluation; private versus social costs and benefits, -concept of cost-benefit analysis; problems identification, categorization, quantification and evaluation of costs and benefits; the welfare basis of cost-benefit analysis; consumers surplus, producers surplus, Pareto criterion, transfer payments, shadow pricing, equity problem, basis of project selection-financial criteria, discount cash flow techniques. Choice of discount rate and social time preference; selection criteria; ranking rules, deferment criteria, dealing with risk and uncertainty; treatment of income distribution and inequalities; workshop on project evaluation. Introduction to Critical Path Analysis Techniques.

Plan 6012: Seminar on Special Problems in Planning and Development - I

Plan 6020: Project

Individual student will select a problem on a particular aspect of urban and regional planning.

Plan 6101: Urban Planning – II

Hierarchy of urban circulation system; concept of environmental areas and planning of environmental areas free from traffic nuisance. The urban renewal process; methods of urban renewal and central area redevelopment, planning of industrial estates, townships, satellite town, new town and town expansion. Theories dealing with current planning problems, problems characteristics of the large city including traffic, transportation, redevelopment, recreation and problem arising in sub-urban areas adjacent to cities and arterial highways.

Plan 6102: Aesthetic component and Urban Design

The role of plan organization; spatial relations, symbol, scale, view, movement, panorama, light, colour, shade and details; composition, scale proportion, harmony and contrast in the creation of urban space, building groups and building facades.

Principles and techniques for the design of the city environment, with special attention to its perceptual form, Development of the form of urban environment, - influence of utopian and ideal concepts. The relation between city form and community objectives, the visual plan as part of the total planning process. Basic design principles of space, and circulation applied to the physical pattern of cities.

Plan 6103: Housing and Site Planning

Cost components of housing; potential areas for housing cost reduction. Housing density, - building height and land saving relationship. Basics of housing management. Estimating housing needs. Principles of housing design and layout. Building codes; building regulations. Problems emphasizing physical development of specific sites involving population densities, public utilities, traffic, building grouping, land use, circulation planning and site engineering.

Plan 6104: Physical Infrastructure Planning (Urban & Rural)

The systematic approach to planning of basic utilities, water systems, sewerage and land drainage, and roads. The urban and regional road pattern; The various types of road and structures, - their alignment, width, gradient, construction and layout. Road

capacities; the planning & design of road and road junctions; derivation of design standards from traffic considerations, parking standards, systems, policies and control. Rural and urban water supply sewerage disposal and land drainage, other utilities such as electricity, gas and their relationship with general development.

Plan 6105: Planning Administration, Implementation and Management Process II

Enabling legislation; eminent domain; police power, planning administration and laws in orders, special forms of control. The enforcement of planning controls. Purchase notices. New towns development. Compensation and betterment problems including compensations for restriction on urban development and urban renewal practice.

U.K. and other advanced countries. Development plans. The meaning of development. The control of development including planning permission, development

Plan 6106: Low-Income Housing and Settlement

Structure and functional analysis of low-income settlement. The basic problem factors of low-income housing. Limitation of current development policies. Myths of high-rise. Low income housing policy. The sites and services scheme, ---its planning, design and implications.

Plan 6107: GIS Applications in Urban and Regional Planning

Review of GIS fundamentals; nature and models of spatial data; quality of spatial data; error propagation in GIS; interpolation and aerial manipulation of spatial data; GIS; analysis functions; GIS implementation issues; case studies of GIS applications in urban planning environmental and resource management, AM/FM, and disaster management.

Plan 6108: System Analysis in Urban and Regional Planning

Introduction to system approach; society as a system; urban, rural and regional system; need for systems analysis in planning; planning goal and systems structure; The systemic planning process. Planning in the control of complex systems; system simulation - modeling; system guidance, control, and review.

Plan 6109: Quantitative Technique in Planning Analysis II

Demographic rate and ratio: population theories and projection and census study. Sampling Techniques; Random and stratified sampling. Estimation of mean, proportion, their standard errors. Urban and rural demographic pattern in Bangladesh. General ideas about different stages of survey operation. Extraction of data from different official records and publications; preparation of forms for recording data. Acquaintance with contents of important statistical publications of Bangladesh and of the United Nations. Introduction to different types of mathematical curves and areas under curves in Cartesian and polar co-ordinates.

Plan 6110: Special Studies

Individual studies on special topics related to the area of specialization.

Plan 6113: Studio: Urban Planning Technique

Survey, analysis and design methods and practices in comprehensive planning; landuse, circulation and other components of the city or metropolitan general plan; relationship of planning to implementation techniques, zoning, urban renewal etc.

Plan 6114: Studio: Housing and Area Planning

Practical application of theoretical principles for the development of housing projects. Problems emphasizing physical development of specific sites involving population densities, public utilities, street patterns, building grouping, land use, site engineering, architectural forms, gardening and landscaping. Problems dealing with neighbourhood structure, community facilities and urban renewal.

Plan 6115: Studio: GIS Application in Urban and Regional planning

Group projects in designing and implementing small-scale GIS for planning-related application involving data acquisition, management, analyses and display of output.

Plan 6120: Regional Development Planning and Resource Use

Theories and principles of the resource use and their limitation in regional development. Human and non-human resources. Movable and immovable resources. Changes in the concept of resources and their uses. Problems of resource allocation and efficient distribution of activities. Review of resource use policy in the U.S.A., u.K. and some developing countries with special emphasis on Bangladesh.

Plan 6121: Rural Development Planning II

Part-I: Political Economy of Rural Development: The political system as they relate to the development planning of rural areas, special attention will be paid to political constraints. Will explore the purpose and methods of introducing change.

Part-II: Decision Making for Rural Economic Development
Emphasis on the application of decision making technique to the evaluation of alternative investment projects and the design of broad sectoral policies. Discussion on the theory of cost benefit analysis, project appraisal and related decision making tools; primary focus on a series of case studies which will require students to derive necessary parameters from a body of data representative of Bangladesh context which allow for the evaluation of investment opportunities.

Plan 6122: Economics of Population Growth

Economic approach to population policy. Emphasis on effects of population growth on problems of underdeveloped countries. The welfare economics of population growth and economic variables (e.g. population growth and consumption, savings, investment, employment and economic growth and its distributive effect). Population growth and urbanization. The concept of urbanization and its process of development. Rural urban problem of migration and settlement management.

Plan 6123: Studio: Regional Planning Techniques

Group projects regarding the planning of the region. Work will include field research, design analysis, and presentation of workable recommendation as to appropriate objectives and actions for solutions.

Plan 6124: Studio: Rural Planning Technique

Practical application of theoretical principles for the development of rural communities. Planning and development of urban villages.

Plan 6125: Disaster Management and Planning

Type and nature of natural and man-made disasters; techniques and issues related to hazard assessments vulnerability analysis and risk assessment; socio-economic impacts of disasters; disasters in urban areas; disaster preparedness and pre-disasters in urban areas; disaster preparedness and pre-disaster management; disaster response and post-disaster management; institutional framework and the experience of disaster management in Bangladesh.

Plan 6130: Urban and Regional Economics

Use of tool of urban and regional economics to analyze a number of urban problems, including housing, transportation, poverty and public finance, determinants of regional and metropolitan growth, theories of urban spatial structure, and the location of firms and households within urban areas.

Plan 6131: Public Finance in Underdeveloped Countries

The role of public sector in developing countries, with emphasis on resource allocation, income redistribution, capital formation, and the control of inflation. Analysis of means of financing economic development, including capital imports, domestic saving, inflation, deficit financing and taxation.

Plan 6132: Rural/Agricultural Development

Rural development and structural transformation: theory and critical review of theoretical approaches to the role of agriculture in the development process. Process of rural planning: issues and strategies: agriculture modernization and the rural poor, industrial growth, rural growth linkages, planning and strategy for growth.

Plan 6133: Agriculture in Economic Development

The Course will present a framework for evaluating rural and agriculture development strategies within the context of national development goals.

Will examine sources of agricultural productivity, with particular attention to resource allocation of farms and within technology development institutions and other agricultural services. Will explore the roles, farm size, land reform, and price policy, as well as the process of technology adoption by peasant and non-peasant farms. Concludes with an evaluation of various agricultural strategies and policies with respect to development policy goals.

Plan 6134: Economic Development

Continuation of Economic Development-I, with special emphasis on some of the major policy issues facing today 's less developed nations, - saving, aid, and foreign investment, the of entrepreneurship, role of multi-nation firms and technical change; the efficiency and location of investment; the role of government planning and private enterprise; economic growth and the distribution of income, wealth and political power.

Ordinance for the Degree of Doctor of Philosophy

1. Degrees Offered

The degree of Doctor of Philosophy shall be offered by the University in the following Department:

Department of Urban and Regional Planning

The degree of Doctor of Philosophy shall be abbreviated as Ph.D.

2. Admission Requirements

2.1 For admission to the courses leading to a Ph.D. degree a candidate

a) must have a minimum GPA of 3.50 out of 5.00 or a first division or equivalent in any one of S.S.C. and H.S.C. or in equivalent examinations and must not have a GPA less than 2.00 out of 5.00 or a third division or equivalent in any of the aforementioned examinations.

b) must have at least 50% marks or a minimum GPA of 2.50 out of 4.0 or its equivalent in B. Sc. Engg. / four-year B. A or B. Sc. degree / M. A or M. Sc. or MSS degree / B. Arch. / BURP in the relevant branch.

c) must have a minimum GPA of 2.75 out of 4.0 or its equivalent in M. Sc. Engg. / M. Engg. / M. Phil / MURP / M. Arch. / M. Sc. (WRD) degree in the relevant branch.

d) Specific requirements for different Departments and Institutes are spelt out in the following sections.

2.2 For Urban and Regional Planning, the minimum qualification for admission shall normally be an MURP degree or its equivalent from any recognized Institution.

3. Admission Procedure

3.1 A candidate may apply to the Registrar for provisional admission to the Ph. D programme in any semester.

3.2 There shall be a Selection Committee in the department as constituted by the relevant BPGS on recommendation of the Head of the Department.

3.3 A candidate selected by the Selection Committee shall be provisionally admitted and may be required to pass the prerequisite non-credit courses as prescribed by the Selection Committee.

3.4 On the recommendation of the appropriate BPGS and CASR the rules for admission into the University for post graduate studies shall be framed from

time to time by the Academic Council. CASR on its own may, if it deems fit, recommend such rules for admission for approval of the Academic Council.

4. Registration

4.1 Every selected candidate, unless he/she has already been registered, shall get himself/herself registered with the University.

4.2 Every registered candidate (student) shall get himself / herself enrolled on payment of prescribed fees and other dues as per University rules before the commencement of each semester. Course registration must be completed within two weeks from the start of the semester otherwise the student shall not be allowed to continue the course in that semester.

5. Appointment of a Supervisor

On provisional admission, the Selection Committee as constituted in Art.3.2 shall submit a name of a Supervisor who shall be a full-time member of the staff belonging to the relevant department/institute and a Co-supervisor from within or outside the department, if necessary. These selections have to be approved by the CASR. The supervisor shall prescribe a plan of study to be undertaken by the student and supervise the progress of the candidate's work.

6 Final Registration

A provisionally admitted student shall be deemed to be eligible for final registration as a Ph.D. student with effect from the date of his/her provisional admission after he/she passes the comprehensive examination (Art.12.3 of this Ordinance).

7. Academic Requirements and Regulations

7.1 The minimum duration of the Ph.D. course shall be four semesters from the date of provisional admission. A student must complete all requirements for the Ph.D. degree within six academic years (session) from the date of his provisional admission.

7.2 Academic progress shall be measured in terms of Credit hours earned by a student. One Credit hour subject shall normally require 14 hours of lecture for one semester while one Credit hour for thesis work should normally require 42 hours of research work for one semester. The number of Credit hours for each subject shall be as specified in the syllabus of the respective department.

7.3 A student must complete a minimum of 54 credit hours of which 45 credit hours shall be assigned for a thesis.

7.4 There shall be two categories of students, namely, full-time students and part-time students.

7.4.1 A student may enroll as a part-time student. Students, serving in different organizations, may also be admitted as part time students with the written consent of the employer. A part time student may be assigned a maximum of 9 credit hours of course including thesis work in any semester.

7.4.2 Full-time students must register for a minimum of 12 credit hours and a maximum of 15 credit hours per semester. A full-time student shall not be allowed to be in the employment of any organization (even as a part-time employee). However, they may be employed as Teaching/Research Assistant at the University. If a full time student becomes an employee (full time or part time) of any other organization in the middle of a semester, he/she may, with the approval of the Head/Director of the Department and his/her Employer, be allowed to continue as a full time student for that semester.

7.4.3 A student may be allowed to switch from part-time to full-time or vice versa on the recommendation of the respective Doctoral Committee before the commencement of a semester.

7.5 The subjects of study in the different Departments shall be as recommended by the respective BPGS and the Faculty / CASR and approved by Academic Council. The BPGS may review the curriculum from time to time and recommend any changes as may be considered necessary.

7.6 The subjects that may be offered in any semester shall be as decided by the relevant department/institute.

7.7 A student on the recommendation of the relevant BPGS and as approved by the CASR may be allowed to transfer a maximum of 3.0 credits of the courses completed by the student at a recognized institution provided that the courses were not taken earlier than five calendar years from the date of his/her first enrolment in the respective programme at BUET and that the student

obtained a minimum GP of 3.0 out of 4.0 or its equivalent in such courses and that the courses are equivalent to the approved courses of BUET.

8. Grading system

8.1 Final grades for courses shall be recorded as follows:

Grading system			
Grade	Merit Description	Numerical points	Markings
A+	Excellent	4.0	90% and above
A	Very good	3.5	80% to below 90%
B+	Good	3.0	70% to below 80%
B	Average	2.5	60% to below 70%
C	Pass	2.0	50% to below 60%
F*	Failure	-	Below 50%
I**	Incomplete	-	
S or U	Satisfactory or unsatisfactory (for non-credit course)		
W	Withdrawn from course		

*Subject in which the student gets F grades shall not be counted towards credit hour requirements and for the calculation of Grade Point Average (G.P.A.).

**Given only when a student is unable to complete the course because of circumstances beyond his control, it must be made up by the close of two semesters or the incomplete grade becomes a failure. He may, however, be allowed to register without further payment of tuition for that course.

8.2 Courses in which the student gets F grade shall not be counted towards credit hour requirements and for the calculation of Grade Point Average (GPA).

8.2.1 The C grades, up to a maximum of two courses, may be ignored for calculation of GPA at the written request of the student to the Head of the Department on the recommendation of supervisor provided that the student has fulfilled the total course credit hour requirement in the remaining subjects with a minimum GPA of 2.75.

8.2.2 When a course is repeated for improvement, better grade shall be counted for calculation of GPA.

8.2.3 Performance in all the subjects including all the F grades shall be reflected in the transcript.

8.3 Grade I is given only when a student is unable to sit for the examination of a course at the end of the semester because of circumstances beyond his control. He/she must apply to the Head of the Department within one week after the examination to get an I grade in that course. It must be completed within the next two semesters, otherwise, the I becomes a F grade. He/she may, however, be allowed to register without further payment of tuition fees for that course.

8.4 Satisfactory or Unsatisfactory used only as final grades for thesis and non-credit courses. Grade for thesis “In Progress” shall be so recorded. If, however, thesis is discontinued an I grade shall be recorded.

8.5 Students may enroll for non-credit course(s) termed as audit course(s) on recommendation of his/her thesis Supervisor and Head of the Department.

8.6 A student shall withdraw officially from a course within two working weeks of the commencement of the semester or else his/her grade in that course shall be recorded as F unless he/she is eligible to get a grade of I. A student may be permitted to withdraw and change his/her course within the specified period with the approval of his Supervisor, Head of the Department and the respective teacher(s) concerned. (In that case his/her grade in the courses registered shall be recorded as ‘W’ in his Academic Record but shall not be reflected in the transcript.)

8.7 Numerical markings may be made in answer scripts, tests etc., but all final gradings to be reported to the Controller of Examinations shall be in the letter grade system as detailed below:

90%	and	above	:	A	(Plus)
80%	to	below	90%	:	A
70%	to	below	80%	:	B (Plus)
60%	to	below	70%	:	B
50%	to	below	60%	:	C
Below	50%	F			

9 Doctoral Committee

A Doctoral Committee for every student shall be proposed by the Supervisor in consultation with the Head of the department. The committee shall be approved by the CASR on recommendation of the BPGS. The Committee shall be formed within six months from the date of the student's provisional admission. The Committee shall consist of at least five members but shall not exceed seven including the Head of the Department and the Supervisor. The Supervisor shall act as the Chairman and the Head of the Department will be an ex-officio member of the Doctoral Committee. The Doctoral Committee should meet from time to time at the request of the Supervisor to review the progress of the student. In special circumstances CASR may approve any addition and/or alteration in the Doctoral Committee on the recommendation of the Supervisor through the Head of the Department.

10 Research Proposal

10.1 The student, after passing the comprehensive examination, shall submit a research proposal to the Doctoral Committee which shall examine the proposal and recommend it for the approval of the CASR through the Head of the Department. In special circumstances the Doctoral Committee may recommend through the Head of the Department to CASR for approval of any subsequent changes in the research proposal.

10.2 Research work for a thesis shall be carried out in this University or at a place(s) approved by the Doctoral Committee. The work schedule and financial involvement should be mentioned in the research proposal for carrying out research work outside the university.

11. Conduct of Examination

11.1 In addition to tests, assignments and/or examinations during the semester as may be given by the teacher(s) concerned, there shall be a written examination and/or other tests for each of the subjects offered in a semester at the end of that semester, the dates of which shall be announced by the Controller of Examinations, BUET as advised by the Dean/Director of the respective Faculties/Institute at least two weeks before the commencement of the examination. The final grade in a subject shall be based on the performance in all tests, assignments and/or examinations.

11.2 The Controller of Examinations shall keep up-to-date record of all the grades obtained by a student in individual Academic Record Card. Grades

shall be announced by the Controller of Examinations at the end of each semester. In addition each student is entitled to one official transcript of the University record at the completion of his/her academic programme from the office of the Controller of Examinations on production of statement of clearance from all departments/institutes /offices.

11.3 The BPGS of a department shall recommend the names of the paper setters and examiners for the semester examination at least two weeks before the date of commencement of the examination to the Vice-Chancellor for approval.

12 Qualifying Requirements

12.1 Course Work

To qualify for the degree a student must earn a minimum grade point average (GPA) of 2.75 based on the weighted average of grade points (GP) in his / her course work.

12.1.1

Two courses may be repeated for improvement with the prior approval of the Head of the Department on the recommendation of Supervisor. Such approval shall be reported to the BPGS.

12.1.2 A student obtaining F grade in a course may be allowed to repeat the course with the prior approval of Head of the Department / Director of the Institute on the recommendation of Supervisor. Such approval shall be reported to the BPGS

12.2 A student shall not be allowed to continue the programme if he/she obtains a total of three or more F grades in one or more than one subjects taken together, during the course of his / her studies.

12. 3 Comprehensive Examination

The date(s) and time of the comprehensive examination shall be fixed by the Doctoral Committee on the request of the Supervisor. Comprehensive examination shall be held after the completion of the course work by the student.

The comprehensive examination shall comprise of a written examination and/or an oral examination to test the knowledge of the student in his/her field

of study and research. The Doctoral Committee shall conduct the comprehensive examination. If a student fails in a comprehensive examination he/she shall be given one more chance to appear at the examination as scheduled by the Doctoral Committee.

12.4 In addition to successful completion of course works and comprehensive examination every student shall submit a thesis on his/her research work fulfilling the requirements.

13. Thesis

13.1 At the end of the student's research work the student shall submit a thesis which must be an original contribution to engineering/sciences and worthy of publication. At least six type written copies of the thesis in the final form as per Appendix-I must be submitted to the Head of the Department.

13.2 The student shall certify (as per Appendix-II) that the research work was done by him / her and that this work has not been submitted elsewhere for any other purpose (except for publication).

13.3 On completion of the research work and submission of the thesis an oral examination shall be arranged on a date or dates fixed by the Supervisor in consultation with the Head of the Department in which the student shall defend his/her thesis. The student must satisfy the examiners (as constituted in Art. 14.1) that he/she is capable of intelligently applying the results of his/her research to the solution of problems, of undertaking independent research and afford evidence of satisfactory knowledge related to the theory and technique used in his / her research work.

14. Examination Board

14.1 An Examination Board for every student for thesis and oral examination shall consist of the Doctoral Committee and one or more external examiner(s) to be appointed by the CASR on the recommendation of the thesis supervisor in consultation with the Head of the Department / Director of the Institute. The Board shall consist of at least six members including the Head of the Department and the supervisor. The supervisor shall act as the Chairman of the Examination Board. At least one external examiner shall be appointed from outside the University. If the external examiner is appointed from outside the country a copy of the thesis should be sent to him / her for his / her

evaluation and his / her written opinion be placed before the Examination Board.

14.2 If any examiner is unable to accept the appointment or has to relinquish his / her appointment before/during the examination, the Vice- Chancellor shall appoint another examiner in his / her place, on the suggestion from the Supervisor in consultation with the Head of the Department. This appointment will be reported to the CASR.

14.3 In case a student fails to satisfy the Examination Board in thesis and /or oral examination, the student shall be given one more chance to resubmit the thesis and/or appear in oral examination as recommended by the Board.

A student who has been transferred to the Ph.D. programme from the M.Sc. Engg./M.Phil/ MURP/ M.Arch./ M.Sc.(WRD) programme may be awarded an M.Sc. Engg./M.Phil/ MURP/ M.Arch./ M.Sc.(WRD) degree on recommendation of the Supervisor, if the student fails to qualify for the award of the Ph.D. degree.

15 Striking off and removal of names from the rolls

The name of the student shall be struck off and / or removed from the rolls of the University on the following grounds:

- (i) Non-payment of dues within prescribed period. Post graduate students residing in the halls of residence shall be subject to the same conditions as allowed in the Ordinance Relating to the Board of Residence and Discipline.
- (ii) Failing to proceed with the programme by the exercise of Art.7.1 or 12.2 or 12.3 of this Ordinance.
- (iii) Failing to make satisfactory progress in his/her programme as reported by the supervisor through the BPGS / RAC and approved by CASR.
- (iv) Forced to discontinue his/her studies by the Board of Residence and Discipline.
- (v) Withdrawn officially from all the courses and / or thesis.

16 Academic Fees

Items of Academic fees shall be as per Appendix III, and the fees shall be reviewed and recommended from time to time by the Academic Council.

17 Refund of Fees

A student withdrawing officially from all courses and / or thesis as per Art. 15(v) is entitled to get a refund of 50% of the course registration fees provided he / she withdraws in writing through the respective Head of the Department before the expiry of two working weeks from the commencement of the classes. Thesis registration fees in any case are not refundable.