UNIVERSITY OF MUMBAI

Ordinances & Regulations,

Scheme and Syllabus
For the
Three year (Part time)
(Sem.I to VI)
Master of Architecture
in
Landscape

(Introduced from the academic year 2008-2009)

Post Graduate Studies in Landscape Architecture
Three years - Part Time

Semester I

Sr. No.	Subject	Scheme of Instruction			Scheme of Exam			
		Lectures	Studio	Hrs. / Week	Internal Assessment	External Assessment	Written Exam	Max Marks
1	Plant Taxonomy	1	0	1	0	0	50	50
2	Geology	1	0	1	0	0	50	50
3	Soils Science	1	0	1	0	0	50	50
4	Climatology	1	0	1	0	0	50	50
5	Landscape Engineeting	1	1	2	100	0	50	150
6	Landscape Design - I	0	8	8	200	200	0	400
	Total	5	9	14	300	200	250	750

Semester II

Sr. No.	Subject	Scheme of Instruction			Scheme of Exam			
		Lectures	Studio	Hrs. / Week	Internal Assessment	External Assessment	Written Exam	Max Marks
1	Plant Physiology	1	0	1	0	0	50	50
2	Hydrology	1	0	1	0	0	50	50
3	History of Landscape Design -I	1	0	1	0	0	50	50
4	Materials and Estimation	1	0	1	0	0	50	50
5	Advance Landscape Engineering	1	1	2	100	0	50	150
6	Landscape Design - II	0	8	8	200	200	0	400
	Total	5	9	14	300	200	250	750

Semester III

Sr. No.	Subject	Scheme of Instruction			Scheme of Exam			
		Lectures	Studio	Hrs. / Week	Internal Assessment	External Assessment	Written Exam	Max Marks
1	Ecology	1	0	1	0	0	50	50
2	History of Landscape Architecture - II	1	0	1	0	0	50	50
3	Computer Application	1	0	1	50	0	0	50
4	Introduction to Urban Design, Town Planning & Traffic Planning	1	0	1	0	0	50	50
5	Plants and Design - I	0	2	2	100	0	50	150
6	landscape Design - III	0	8	8	200	200	0	400
	Total	4	10	14	350	200	200	750

Semester IV

r. No.	Subject	Scheme of Instruction			Scheme of Exam			
		Lectures	Studio	Hrs. / Week	Internal Assessment	External Assessment	Written Exam	Max M. rks
1	Ecosystem Analysis	1	0	1	0	0	50	50
2	Environmental Impact Assessment & Legislation	1	0	1	0	0	50	50
3	Landscape Management & Horticultu Practice	1	0	1	0	0	50	50
4	Electives / Seminars	1	0	1	0	0	50	50
5	Plants & Design - II	0	2	2	100	0	50	150
6	Landscape Design Studio - IV	0	8	8	200	200	0	400
	Total	4	10	14	300	200	250	750

Semester V

r. No.	Subject	Scheme of Instruction			Scheme of Exam			
		Lectures	Studio	Hrs. / Week	Internal Assessment	External Assessment	Written Exam	Max Mark
1	Landscape Conservation & Regional landscape planning	1	0	1	0	0	50	50
2	Landscape resources	1	0	1	0	0	50	50
3	Landscape Project Mangement & professional Practice	1	0	1	0	0	50	50
4	Electives / Seminars	1	0	1	0	0	50	50
5	Landscape Design Studio - V	0	10	8	300	250	0	550
	Total	4	10	14	300	250	200	750

Semester VI

r. No.	Subject	Scheme of Instruction			Scheme of Exam			
		Lectures	Studio	Hrs. / Week	Internal Assessment	External Assessment	Written Exam	Ma Mar
1	Landscape Design - III Thesis	0	14	14	500	250	0	75
	Total	0	14	14	500	250	0	

MASTER OF ARCHITECTURE IN LANDSCAPE

PREAMBLE:

1. NEED OF POST GRADUATE STUDIES IN LANDSCAPE ARCHITECTURE

The concern about degrading environment around us and the desire to improve the same by direct or indirect efforts initiates the need to upgrade the environment by beautifying our own localities. We can plant trees, shrubs, lawns, hedges, creepers and climbers etc. But, such a development could be possible only with the proper planning by resolving the problems in a particular area. If landscaping is undertaken with proper planning, it would really enrich the surroundings and help by offering more pure air to breathe which s one of the concern of today.

Unfortunately, we have only a handful number of professionals within us who could do the needful as we have only three Institutes at National level (Delhi, Ahmedabad and Hyederabad) offering Post-Graduate Studies in Landscape. The total intake of all these Institutes is not more than 60 students per year. Out of them, very few students practice in Mumbai or n Maharashtra. There is thus the need to offer the Post Graduate Course in Landscape Architecture and also to form the Society for Landscape Architects or Indian Institute of Landscape Designers, as there are a good number of Landscape Designers available in the City of Mumbai.

It is important to start the Post Graduate Course in Landscape Architecture as Landscape Architecture has remained any more a personal luxury but has become an essential need of our society.

2. WHY WE NEED LANDSCAPE ARCHITECTURE COURSE IN MUMBAI?

1. Two Institutes offering Post-graduate Studies happen to be in the Northern half of Indian whereas only one Institute is located in the Southern half.
2. Mumbai is the commercial Capital of India undergoing a rapid development. Obviously people migrate to Mumbai from different parts of India, in search of jobs. Over the years Mumbai has acquired a status of concrete jungle. Pollution levels are increasing everyday due to increase in number of vehicles. We have water pollution (caused by development). With this situation according to us Mumbai is the most suitable place to start a Post-Graduate Course in Landscape Architecture.
3. Mumbai offers post-graduate Studies in all leading streams of education except architecture. Post Graduation in Landscape Architecture could be a positive step towards a breakthrough.
4. Maharashtra is one of the leading States of Indian in terms of education, which is clearly evident from a large number of institutions offering graduate and post-graduate courses in various disciplines

The 2 year fulltime Master Course in Architecture has already been accepted by the academic council at its meeting head at 16th December 2000, wide item No. 4.22 and subsequently approved by the Management Council at it's meeting held on 30th January 2001 wide item No. 6. "That the Ordinances, Regulation, scheme and syllabus for Master Of Architecture In Landscape has been introduce with effect from the Academic year 2001-2002 as per Appendix."

The same course is now being converted to a 3 years part time course to facilate Teachers and Professional.

* Commencement of such course would be one more feather in the cap for Maharashtra.

3. IMPORTANT FEATURES OF POST GRADUATE STUDIES

1. Detailed study of main and allied subjects spread over six Semesters (Three Years)
2. Practice oriented Upgraded Syllabus.
3. Compulsory use of Computers in 3rd Semester to meet the challenges offered by changing work environment and latest technology.
4. Design Studios will be conducted by practicing Landscape Architects.
5. Specialists in the subjects will be invited to teach theory subjects.
6. Practicing Landscape Architects will conduct evaluation.
7. Theory and Studio classes will be scheduled for 14 hours a week time will be reserved for Site Visits, Slide Shows, Visiting Lectures, Seminars, and Product Presentations during all the Semester.
8. Field trip to a botanical garden will be conducted during 2nd Semester.
9. More stress will be levied on Sessional works, progressive markings, and reviews than on written examinations.

UNIVERSITY OF MUMBAI

ORDINANCES, REGULATIONS & SYLLABUS FOR THE

MASTER OF ARCHITECTURE IN LANDSCAPE

O 5746 A Candidate for being eligible for admission to first Semester of master of Architecture in Landscape must be a Graduate who has completed B ARCH Degree of a recognized University or equivalent qualifications.

O 5747 The course leading to the Master of architecture in Landscape shall be six semesters part time course three years.

R 5838 There will be an examination at the end of each semester. the candidate obtaining Master of Architecture in Landscape will be required to pass all the Examinations held at end of each semester by the Competent authority mentioned hereafter.

R 5839 The Master of architecture in Landscape will not be conferred upon a candidate unless the candidate has passed in all the papers and Sessional Work prescribed to each semester Examination.

FIRST SEMESTER

R 5840 The following are the syllabi in various subjects of the First Semester Examination in Landscape Architecture.

R 5841 The candidate will be examined in the following subjects as per th
Examination scheme for the First Semester Examination in Landscape Architecture which will be conducted by the College affiliated on behalf of the University of Mumbai .

Post Graduate Studies in Landscape Architecture
Three years - Part Time

Semester I

		Scheme of Instruction			Scheme of Exam			
Sr. No.	Subject	Lectures	Studio	Hrs. / Week	Internal Assessment	External Assessment	Written Exam	Max Marks
1	Plant Taxonomy	1	0	1	0	0	50	50
2	Geology	1	0	1	0	0	50	50
3	Soils Science	1	0	1	0	0	50	50
4	Climatology	1	0	1	0	0	50	50
5	Landscape Engineeting	1	1	2	100	0	50	150
6	Landscape Design - I	0	8	8	200	200	0	400
	Total	5	9	14	300	200	250	750

POST GRADUATE STUDIES IN LANDSCAPE ARCHITECTURE

THREE YEARS – PART TIME

SEMESTER : I TOTAL MARKS : 750

1 PLANT TAXONOMY

MARKS
THEORY : 50
CONTACT HRS/WEEKS. : 1

Introduction to plant kingdom:
Taxonomy & its significance, Nomenclature, classification Botanical characteristics & identification of different groups study of vegetation of India Mumbai & its suburbs.

Evaluation by question paper of 1 hr duration.

Evaluation by course faculty.

2 GEOLOGY :

MARKS
THEORY : 50
CONTACT HRS/WEEKS. : 1

Geological environments, glacial, fluvial, and shoreline
The Earth – composition, structure, distribution of land and sea, outer zones of the Earth. Major geological cycles – external and internal processes, changes and effects such as earthquakes – Volcanoes folds, faults, etc.

Rocks – formation, classification, physical and chemical properties. Mass wasting and erosion chemical properties. Mass wasting and erosion Evolution of Landscapes. Basic concept of geomorphology/Geological factors in development of landscape / Environment Based on geological resources and Man's interventions their impact or environment and Landscape design.

Evaluation by question paper of 1 hr duration.

Evaluation by course faculty.

3 SOILS SCIENCE

MARKS
THEORY : 50
CONTACT HRS/WEEKS : 1

Soil forming processes : Weathering, Pedogenesis, Soil profile, effects of climate, vegetation, erosion and deposition, lack of drainage, type and parent material on soil development.

Properties of Soil : Physical, chemical and biological properties, soil capability study.

Soil erosion : type, factors, conservation principles, methods for prevention, control and reclamation.

Soil Modification : Problem soils – (Acid, Alkali and Saline soils) – their causes and remedies. Ideal pH for some plants. Mineral nutrition and deficiency symptoms, manures and fertilizers including composting soil conditioning, soil mixtures alternative to soil.

Vermiculture, Soil Classification for India, Agra climatic zones of India.

Evaluation by question paper of 1 hr duration.

Evaluation by course faculty.

4 CLIMATOLOGY

MARKS
THEORY : 50
CONTACT HRS/WEEKS. : 1

Elements of weather : A brief introduction to the composition of atmosphere, elements of weather, temperature, precipitation, humidity, air pressure, wind patterns, and corridors.

Changes in atmosphere with altitude. Land water dynamics, Radiation.

Climatic zones of India : A brief outline of various characteristics critical aspect, duration of the critical conditions etc.

Evaluation of climatic data : Sources, methods of obtaining climatic data- Instruments, charts used for this purpose. Use of hand held instruments, charts for on site study.

Simplification and synthesis of climatic date and how to arrive at conclusions/vegetation, soil, water etc. as indicators of climate.

Micro climate : Climatic impact of natural elements, landforms, vegetation, wind, temperature, solar radiation control etc. wind breaks, shelter belts.

The Impact of natural and manmade features on climate : Change in micro climate of an area with presence of natural and manmade features and effect on the micro climate of the site.

Microclimatic controls : How various landscape elements vegetation, water, landforms and site planning process help modify the climatic condition at site and city level.

What are the effects of each of the elements individually and in combination. What are the limitations of each of the methods.

Weather in relation to pollution control.

Evaluation by question paper of 1 hr duration.

Evaluation by course faculty.

5 LANDSCAPE ENGINEERING & CONSTRUCTION

MARKS

THEORY : 50

STUDIO :100

CONTACT HRS/WEEKS. : 2

Design of Landforms and surface runoff

Contours – representation of land forms and land form design, interpolation of contours, slope analysis, uses and function.

Grading - Symbols and abbreviations, basic grading exercises, grading and alignment of paths/roads, angle of repose and use of retaining walls. Grading terraces.

Earth works – Principles of earthwork, cut and fill calculations – Borrow pit method, average and area method, average spot level method, precautions taken in cut and fill methods in relation to soil conditions, amount of precipitation etc.

Drainage – surface drainage, calculation of surface run-off, design of surface and storm water drainage, design of swales & gutters, soak pits, water harvesting schemes. Planning and grading of sports fields.

Mode of evaluation : Question paper of duration 2 hrs and sessional assignments.

Evaluation : By Course Faculty and Studio Faculty.

6 LANDSCAPE DESIGN - I

MARKS
STUDIO :400
CONTACT HRS/WEEKS. : 8

Studio work shali deal with an appreciation of basic landscape design issues and elements – simple site planning, use of plant material for defining and structuring the open spaces, landscape treatments in relation to the buildings, understanding the aesthetic qualities of the plant material and their associations.

In the initial stages only one aspect or skill would be emphasized. But as the studio progresses complexities would be simultaneously considered.

Mode of evaluation : Continuous Studio reviews by faculty members. Presentation of studio exercises, for evaluation by External Jury.

Site admeasuring 1 to 2 acres.

Evaluation : by Studio faculty & External Jury.

Total Studio Marks for Landscape Engineering Construction & Landscape Design : 500 (300 internal & 200 external)

Evaluation : By Studio Faculty & External jury.

STANDARD OF PASSING THE FIRST SEMESTER EXAMINATION

R 5842 To pass the Examination candidate must obtain 50% of the full marks in Theory and 50% of the full marks in Sessional work. However the candidate who has failed either in Theory or Sessional but has obtained the passing marks either in Theory or Sessional is at his own option to be excused from appearing for Theory or Sessional in which he had passed and the Marks obtained in the Theory or Sessional in which he has passed shall be carried over to the subsequent examination.

Those successful candidates who obtained 55% of the total marks obtainable in the examination taken at one sitting only will be placed in the Second Class.

Those successful candidates who obtained 60% of the total marks obtainable in the examination taken at one sitting will be placed in the First Class.

SECOND SEMESTER

O5748 A candidate for being eligible for admission to Second Semester in Landscape Architecture of this University shall produce testimonials of having satisfactorily kept attendance of First Semester and completed the required Sessional Work prescribed for the First Semester, to the satisfaction of the head of the college in which the candidate had been studying, and has passed the First Semester in Landscape Architecture Examination conducted by the prescribed Authority. In case of failure in the First Semester Examination, the candidate will be permitted to join the Second Semester provided the candidate had obtained a minimum of 50% Marks in Landscape Design.

R5843 A candidate who has passed the First Semester Examination and has Satisfactorily completed the course of Second Semester will be permitted to appear for Second Semester Examination in Landscape Architecture.

R5844 The following are the syllabi in various subject of the Second Semester Examination in Landscape Architecture.

R 5845 The candidates will be examined in the following subjects as per Examination scheme for the Second Semester Examination in Landscape Architecture which will be conducted by the College affiliated on behalf of the University of Mumbai

Post Graduate Studies in Landscape Architecture

Three years - Part Time

Semester II

		Scheme of Instruction			Scheme of Exam			
Sr. No.	Subject	Lectures	Studio	Hrs. / Week	Internal Assessment	External Assessment	Written Exam	Max Marks
1	Plant Physiology	1	0	1	0	0	50	50
2	Hydrology	1	0	1	0	0	50	50
3	History of Landscape Design -I	1	0	1	0	0	50	50
4	Materials and Estimation	1	0	1	0	0	50	50
5	Advance Landscape Engineering	1	1	2	100	0	50	150
6	Landscape Design - II	0	8	8	200	200	0	400
	Total	5	9	14	300	200	250	750

POST GRADUATE STUDIES IN LANDSCAPE ARCHITECTURE

3 YEARS – PART TIME

SEMESTER – II TOTAL MARKS : 750

1 PLANT PHYSIOLOGY

MARKS -
THEORY : 50
CONTACT HRS/WEEKS. : 1

Plant Growth processes viz; Photosynthesis, Respiration & Factors affecting them.
Physiology of

A) Roots : Related to absorption of water & nutrients.
B) Leaves & branches related to growth, effect of pruning on tree growth & flowering
C) Flowering

Horticultural Practices

Transplanting : Trees suitable for transplanting, care & conditions for successful transplanting.

Evaluation by question paper of 2 hrs duration.

Evaluation by course faculty.

2 HYDROLOGY :

MARKS
THEORY : 50
CONTACT HRS/WEEKS. : 1

Hydrological cycles and sources of surface water. Characteristics and management of drainage basins. Type of flow channels, management of surface water. Ground water occurrence. Aquifer recharge areas, infiltration, water intrusion areas, water bearing, ground water management, sources of ground water pollution and its control, use of saline/brackish water for development. Basic impacts of hydrology on environment and landscape development.

Mode of evaluation by question paper of 1 hr. duration

Evaluation : by Course faculty.

3 HISTORY OF LANDSCAPE DESIGN - I

MARKS
THEORY : 50
CONTACT HRS/WEEKS. : 1

An overview of the development of Landscape design from prehistoric to present with an aim to understand the generative ideology, formulation of framework for the development of landscape design.

Landscape and garden design in the ancient world; Babylon, Egypt, Paris, Greece, Rome and India.

The Islamic tradition: Influence in Spain, the Mughal Garden in India : origin, principles and development.

Renaissance in Europe. Italian and French gardens.

Evolution of the axial plan. Development during the baroque period.

England : Evolution of the English Landscape style.
Japan : Japanese Landscape Style.

The 19th Century in Europe and USA: emergence of landscape architecture an a profession.
Evaluation by question paper of 2 hrs duration
Valuation by course Faculty.

4 MATERIALS AND ESTIMATION.

MARKS
THEORY : 50
CONTACT HRS/WEEKS. : 1

Natural materials, Manmade materials, use of materials, use of ideal materials for driveways, pathways, cubings, retaing walls, lighting etc. Rejional availability of material & usage.

Calculation of areas, quantities, actual market rates including breakup.

Mode of Evaluation by Question Paper of 2 hrs duration.

Evaluation by course Faculty.

5 ADVANCE LANDSCAPE ENGINEERING

MARKS	
THEORY	: 50
STUDIO	: 100
CONTACT HRS/WEEKS	: 2

A. Design of Water Features :
Use of water in the appropriate context of time, political/religious power, way of thinking, technical advancements and influences from other regions. Qualities of water, scope, type of display.

Design of water features, technical requirements considerations for design and detail.

Design of irrigation system : Landscaped areas types, objectives and design, water needs and sources, application methods of installation, control systems, scheduling, maintenance.

B. Design and detail of hard landscape: Paving, barriers, edge conditions - functions, Types, criteria for selection, design aspects, detail design. Design of roads, highways & parkways calculation of vertical & horizontal alignments.

C. Design of electrical lighting : Definition of technical terms, types of electrical lighting, types of electrical lighting, types of fixtures, auxiliary fixtures, principles of design for outdoor illumination, design & types of effects with electrical lighting, safety precaution & drawbacks of electrical lighting, electrical accessories and their installation.

Use of non-conventional sources of energy.
Evaluations : By question paper of 2 hrs duration & sessional assignments.

Evaluation by Course faculty and Studio faculty.

6 LANDSCAPE DESIGN - II

MARKS
THEORY : 400
CONTACT HRS/WEEKS. : 8

The studio exercises will involve 3 or 4 of the following situations - urban context,.

1 Urban & Rural Landscape appraisal .
2 Analysis & Site Planning for medium sites
3 Landscape Design of small recreation sites.

Mode of evaluation : Continuous studio reviews by Studio faculty and presentation of studio exercises for evaluation by External Juries.

Total Studio Marks for Advanced Landscape Engineering & Landscape Design II : 500 (300 internal & 200 external)

STANDARD OF PASSING THE SECOND SEMESTER EXAMINATION

R 5846 To pass the Examination candidate must obtain 50% of the full marks in Theory and 50% of the full marks in Sessional work. However the candidate who has failed either in Theory or Sessional but has obtained the passing marks either in Theory or Sessional is at his own option to be excused from appearing for Theory or Sessional in which he had passed and the Marks obtained in the Theory or Sessional in which he has passed shall be carried over to the subsequent examination.

Those successful candidates who obtained 55% of the total marks obtainable in the examination taken at one sitting only will be placed in the Second Class.

Those successful candidates who obtained 60% of the total marks obtainable in the examination taken at one sitting will be placed in the First Class.

THIRD SEMESTER

O 5749 A candidate for being eligible for admission to Third Semester in Landscape Architecture of this University shall produce testimonials of having satisfactorily kept attendance of Second Semester and completed the required Sessional Work prescribed for the Second Semester, to the satisfaction of the head of the college in which the candidate had been studying, and has passed the Second Semester in Landscape Architecture Examination conducted by the prescribed Authority. In case of failure in the Second Semester Examination, the candidate will be permitted to join the Third Semester provided the candidate had obtained a minimum of 50% Marks in Landscape Design.

R 5847 A candidate who has passed the Second Semester Examination and has Satisfactorily completed the course of Second Semester will be permitted to appear for Third Semester Examination in Landscape Architecture.

R 5848 The following are the syllabi in various subject of the Third Semester Examination in Landscape Architecture.

R 5849 The candidates will be examined in the following subjects as per Examination scheme for the Third Semester Examination in Landscape Architecture which will be conducted by the College affiliated on behalf of the University of Mumbai

Post Graduate Studies in Landscape Architecture

Three years - Part Time

Semester III

Sr. No.	Subject	Scheme of Instruction			Scheme of Exam			
		Lectures	Studio	Hrs. / Week	Internal Assessment	External Assessment	Written Exam	Max Marks
1	Ecology	1	0	1	0	0	50	50
2	History of Landscape Architecture - II	1	0	1	0	0	50	50
3	Computer Application	1	0	1	50	0	0	50
4	Introduction to Urban Design, Town Planning & Traffic Planning	1	0	1	0	0	50	50
5	Plants and Design - I	0	2	2	100	0	50	150
6	landscape Design - III	0	8	8	200	200	0	400
	Total	4	10	14	350	200	200	750

POST GRADUATE STUDIES IN LANDSCAPE ARCHITECTURE

THREE YEARS – PART TIME

SEMESTER – III TOTAL MARKS : 750

1 ECOLOGY

MARKS
THEORY : 50
CONTACT HRS/WEEKS. : 1

Fundaments of Ecology definition, scope, ecosystems and their functioning nature and characteristics, components biotic and a biotic, major types, the biosphere and its functioning.
Ecological Processes : energy flow-energy source, food chains and tropic structure, ecological pyramids, bio-geo-chemical cycles hydrologic cycles hydrologic cycle nutrient cycles – carbon, nitrogen, sulfur, phosphorous, evolution – variation and selection.

Ecology of growth, regulation, limits to growth, carrying capacity.

Evaluation by question papers of 2 hrs duration.

Evaluation : by course faculty.

2. HISTORY OF LANDSCAPE ARCHITECTURE - II

MARKS
THEORY : 50
CONTACT HRS/WEEKS. : 1

The 20th Century : Development of urban landscape design : garden cities, suburbs, new towns, contemporary approaches in Landscape Architecture, with examples.

The Indian context : Understanding attitudes to open space design in India : ancient horticultural traditions : Mughal influence : British colonial influence : contemporary issues.

Eco-tourism & sustainable development.

Evaluation by question papers of 2 hrs duration.

Evaluation : by Course faculty.

3 COMPUTER APPLICATION

MARKS
CLASS ASSIGNMENTS : 50
CONTACT HRS/WEEKS. : 1

Use of Computer in preparation, presentation of drawings
Calculation of earth work and other quantities with the help of computer.
Remote sensing land information systems & G.I.S.

Evaluation : By class assignments.

Evaluation : by Course faculty.

4 INTRODUCTION TO URBAN DESIGN, TOWN PLANNING & TRAFFIC PLANNING.

MARKS : 50
CONTACT HRS./WEEKS : 1

Introduction to Interrelation of Landscape to urban design town planning & traffic planning.
Evaluation : By question paper of 2 hrs duration.
Evaluation : by Course faculty.

5 PLANTS AND DESIGN - I

MARKS 50 Theory : 100 Studio
CONTACT HRS/WEEK : 2

i) Physical characteristics of plant material.
ii) Plant association communities (Shape, Colour, Form Texture & Size)
iii) Factor affecting choice of plant material for specific design applications.
iv) Basic principle of planting design : functional of esthetic values of plants in landscape design.
v) Plants for urban of Rural roads, parks, residential areas etc.
vi) Preparation of planting plan & specifications.

Detailed study of plant material and appreciation of its intrinsic values, role of plant material in Landscape design, planting design.

Mode of evaluation : Presentation of assignment & question paper of 2 hrs duration.

Evaluation : by Course faculty.

25 KV

6 LANDSCAPE DESIGN – III

MARKS
STUDIO :400
CONTACT HRS/WEEKS. : 8

Large scale Exercises of analysis & Purpose related to Landscape of

[i] Spaces at Urban Design Scale
[ii] Traffic inter charge systems
[iii] Heritage / Cultural Landscape.

Total Studio Marks for Plant & Design & Landscape Design Studio : 500 (300 internal & 200 external)

AC

21

STANDARD OF PASSING THE THIRD SEMESTER EXAMINATION

R5850 To pass the Examination candidate must obtain 50% of the full marks in Theory and 50% of the full marks in Sessional work. However the candidate who has failed either in Theory or Sessional but has obtained the passing marks either in Theory or Sessional is at his own option to be excused from appearing for Theory or Sessional in which he had passed and the Marks obtained in the Theory or Sessional in which he has passed shall be carried over to the subsequent examination.

Those successful candidates who obtained 55% of the total marks obtainable in the examination taken at one sitting only will be placed in the Second Class.

Those successful candidates who obtained 60% of the total marks obtainable in the examination taken at one sitting will be placed in the First Class.

FOURTH SEMESTER

05750 A candidate for being eligible for admission to Forth Semester in Landscape Architecture of this University shall produce testimonials of having satisfactorily kept attendance of Third Semester and completed the required Sessional Work prescribed for the Third Semester, to the satisfaction of the head of the college in which the candidate had been studying, and has passed the Third Semester in Landscape Architecture Examination conducted by the prescribed Authority. In case of failure in the Third Semester Examination, the candidate will be permitted to join the Forth Semester provided the candidate had obtained a minimum of 50% Marks in Landscape Design.

R5851 A candidate who has passed the Third Semester Examination and has Satisfactorily completed the course of Forth Semester will be permitted to appear for Forth Semester Examination in Landscape Architecture.

R5852 The following are the syllabi in various subject of the Fourth Semester Examination in Landscape Architecture.

R5853 The candidates will be examined in the following subjects as per Examination scheme for the Forth Semester Examination in Architecture which will be conducted by University.

AC

Post Graduate Studies in Landscape Architecture
Three years - Part Time

Semester IV

Sr. No.	Subject	Scheme of Instruction			Scheme of Exam			
		Lectures	Studio	Hrs. / Week	Internal Assessment	External Assessment	Written Exam	Max Marks
1	Ecosystem Analysis	1	0	1	0	0	50	50
2	Environmental Impact Assessment & Legislation	1	0	1	0	0	50	50
3	Landscape Management & Horticultural Practice	1	0	1	0	0	50	50
4	Electives / Seminars	1	0	1	0	0	50	50
5	Plants & Design - II	0	2	2	100	0	50	150
6	Landscape Design Studio - IV	0	8	8	200	200	0	400
	Total	4	10	14	300	200	250	750

POST GRADUATE STUDIES IN LANDSCAPE ARCHITECTURE

THREE YEARS – PART TIME

SEMESTER – IV TOTAL MARKS : 750

1. ECO SYSTEM ANALYSIS

MARKS
THEORY : 50
CONTACT HRS/WEEKS. : 1

Ecological communities : spatial structure, ecological niche and species diversity, succession.
Limiting factors and their operations : climatic and atmospheric factors, spoils, biotic factors, interaction of factors.

Ecological balance and survival thresholds.

Human influences on ecosystems : historical overview, the rise of agriculture, civilizations, industrialization and economitant urbanization, impacts on the environment global perspective, national perspective-ecosystems of India : ecological issues.

Evaluation : by course faculty.

2 ENVIRONMENTAL IMPACT ASSESSMENT & LEGISLATION

MARKS
THEORY : 50
CONTACT HRS/WEEKS. : 1

Environmental science : Environment- definition, important components, quality of total environment, global issues - green house effect, acid rain, etc., status of environment in India, environment related acts, international treaties on environment, sustainable development - ecological & economical parameters, public participation & role of NGO's.

Pollution-definition-pollution of air, water, land and noise, effect on humans, flora, fauna, vegetation & life forms, demandation of land.

Environmental impact assessment : definitions, methodologies, techniques, advantages & disadvantages. Process - data collection, Identification of study area, scope, aim, environmental standards & their measurement.

EIA in India, legislation related to EIA, EIA in developed and developing countries, ecological attitudes in the past.

Environmental criteria for location of human settlements any major land based activity industries/dam sites & quality of life. Applicability of EIA to various development programmes. Integration of EIA methodology to landscape design. Environmental planning and management strategies and approaches relevant to urban and rural areas, co-ordination and relationship to landscape design.

Mode of evaluation : Submission of Term Paper and/or Test of 2 hrs duration
Evaluation : by Course faculty & Studio faculty.

Environment Legislation :
Concept of law-constitution in relation to environment.

Introduction to town planning legislation and legal tools for development control and their relationship for landscape design objectives.

Indian forests Act, 1927 preserved, protected, private and village forests – wildlife sanctuaries act.

Legislative and administrative framework for National parks in U.K., U.S.A., and India.

Periphery control legislation and green belt concept. Preservation of the country side.

Legislation relating to preservation of parks , open spaces, play grounds, trees and ancient monuments.

(Air/preservation and control of pollution) Act, 1981, Water (preservation and control of pollution) Act, 1974 - Mining Act.

Coastal Regulation Zone.

Mode of evaluation : question paper of 2 hrs duration Evaluation : by Course faculty.

3. Landscape Management & Horticultural practice

MARKS
THEORY : 50
CONTACT HRS/WEEKS. : 1

Economics : Cost and benefits related to open space development.

Management : at regional scale soil conservation water management grass land management forestry and agricultural.

Horticultural Practices and maintenance.

Mode of evaluation : question paper of 2 hrs duration Evaluation : by Course faculty.

4. Electives / Seminars

MARKS
THEORY : 50
CONTACT HRS/WEEKS. : 1

i) Sculpture and painting
ii) Art appreciation
iii) Vastu in Landscape
iv) Software designing (by using Indian plants in Landscape).

Mode of evaluation : by sessional assignments.

5. Plants & design - II

MARKS
THEORY : 50
STUDIO :100
CONTACT HRS/WEEKS. : 2

Growth rate of plants as criteria for plant choice, concept of nursery planting.

Planting for wind breaks, shelter belts, wild life land rehabilitation, and watershed management.

Landscape maintenance and management.

Elements of horticultural practices.

Preparation of planting concepts, planting plans, and plant schedule for large scale projects.
Estimation of costs and bills for quantity.

Question Paper of 2 year duration. Evaluation by course faculty.

6. Landscape Design Studio - IV

MARKS
STUDIO :400
CONTACT HRS/WEEKS. : 8

Site selection, analysis and proposals related to landscape of :

1. Housing estates
2. Institutional campuses
3. Industrial estates
4. Large recreational areas

Total Studio Marks for Plant & Design & Landscape Design Studio : 500 (300 internal & 200 external)

AC

27

STANDARD OF PASSING THE FOURTH SEMESTER EXAMINATION

R 5854 To pass the Examination candidate must obtain 50% of the full marks in Theory and 50% of the full marks in Sessional work. However the candidate who has failed either in Theory or Sessional but has obtained the passing marks either in Theory or Sessional is at his own option to be excused from appearing for Theory or Sessional in which he had passed and the Marks obtained in the Theory or Sessional in which he has passed shall be carried over to the subsequent examination.

Those successful candidates who obtained 55% of the total marks obtainable in the examination taken at one sitting only will be placed in the Second Class.

Those successful candidates who obtained 60% of the total marks obtainable in the examination taken at one sitting will be placed in the First Class.

FIFTH SEMESTER

O 5751 A candidate for being eligible for admission to Fifth Semester in Landscape Architecture of this University shall produce testimonials of having satisfactorily kept attendance of Forth Semester and completed the required Sessional Work prescribed for the Forth Semester, to the satisfaction of the head of the college in which the candidate had been studying, and has passed the Forth Semester in Landscape Architecture Examination conducted by the prescribed Authority. In case of failure in the Forth Semester Examination, the candidate will be permitted to join the Fifth Semester provided the candidate had obtained a minimum of 50% Marks in Landscape Design.

R 5855 A candidate who has passed the Forth Semester Examination and has Satisfactorily completed the course of Fifth Semester will be permitted to appear for Fifth Semester Examination in Landscape Architecture.

R 5856 The following are the syllabi in various subject of the fifth Semester Examination in Landscape Architecture.

R 5857 The candidates will be examined in the following subjects as per Examination scheme for the Fifth Semester Examination in Landscape Architecture which will be conducted by the College affiliated on behalf of the University of Mumbai

KC

Post Graduate Studies in Landscape Architecture
Three years - Part Time

Semester V

Sr. No.	Subject	Scheme of Instruction			Scheme of Exam			
		Lectures	Studio	Hrs. / Week	Internal Assessment	External Assessment	Written Exam	Max Marks
1	Landscape Conservation & Regional	1	0	1	0	0	50	50
	landscape planning							
2	Landscape resources	1	0	1	0	0	50	50
3	Landscape Project Mangement	1	0	1	0	0	50	50
	& professional Practice							
4	Electives / Seminars	1	0	1	0	0	50	50
5	Landscape Design Studio - V	0	10	8	300	250	0	550
	Total	4	10	14	300	250	200	750

POST GRADUATE STUDIES IN LANDSCAPE ARCHITECTURE

THREE YEARS – PART TIME

SEMESTER – V TOTAL MARKS : 750

1 LANDSCAPE CONSERVATION AND REGIONAL . LANDSCAPE PLANNING

MARKS : *150*
CONTACT HRS WEEKS :

Environmental impact of man's activities on earth. Role and characteristics of agricultural, forestry, industry and urbanization as components of the original landscape, landscape conservation.

National parks and other protective designations. Endangered landscape forestry forestry types of India and their distribution : Forest policy : Forest and wildlife Forest and agricultural as competent uses in hill areas : social forestry.

Landscape assessment techniques : Basic quantitative methods of collecting analyzing projecting and presenting data for Landscape planning.

Characteristics and elements from which landscape quality is derived visual and cultural landscape values. Environment impact studies. Case examples of landscape planning at regional scale.

Mode of evaluation question paper of 2 hrs duration and Term paper.

Evaluation : by Course faculty.

2. Landscape resources

Marks 50 Theory
Contact hrs. : 1

Siting and evolution of cities in relation to regional landscape resource.

Landscape heritage, cultural and sacred sites. City development plans – development controls to conserve / create urban landscape.

Overview of landscape resources at national level – issues related to mountains, deserts, coastal and coastal regions.
Rural landscape – agricultural and forestry.

30.
AR

Policies concerning – wastelands and watersheds

Mode of evaluation question paper of 2 hrs duration and Term paper

Evaluation : by Course faculty.

3. **Landscape Project Management & Professional Practice**

Marks 50 Theory
Marks 50 Internal Assessment
Contact hrs. : 1

Legal aspects – codes, standards, and byelaws – role of municipal corporation, CRZ, EC commission etc.

Contract procedure, documenting etc.

Type of clients, professional fees, and role of professional institutes

Mode of evaluation question paper of 2 hrs duration and Term paper

Evaluation : by Course faculty.

4. **Electives / Seminars**

Marks : 50 theory
Contact Hrs. 1

1. Mythological importance of plant
2. Social dimensions in landscape architecture
3. Medicinal plants
4. Management skills

Evolution by class assignments

5. **Landscape Design Studio - V**

Marks : 550
Contact hrs. 10

Large scale exercise of analysis, policies and proposals related to large projects like sites for SEZ, Eco-tourism projects etc.

Total Studio Marks for Landscape Design Studio : 550 (300 internal & 250 external)

AC

STANDARD OF PASSING THE FIFTH SEMESTER EXAMINATION

R 5858 To pass the Examination candidate must obtain 50% of the full marks in Theory and 50% of the full marks in Sessional work. However the candidate who has failed either in Theory or Sessional but has obtained the passing marks either in Theory or Sessional is at his own option to be excused from appearing for Theory or Sessional in which he had passed and the Marks obtained in the Theory or Sessional in which he has passed shall be carried over to the subsequent examination.

Those successful candidates who obtained 55% of the total marks obtainable in the examination taken at one sitting only will be placed in the Second Class.

Those successful candidates who obtained 60% of the total marks obtainable in the examination taken at one sitting will be placed in the First Class.

SIXTH SEMESTER

O 5752 A candidate for being eligible for admission to Sixth Semester in Landscape Architecture of this University shall produce testimonials of having satisfactorily kept attendance of Fifth Semester and completed the required Sessional Work prescribed for the Fifth Semester, to the satisfaction of the head of the college in which the candidate had been studying, and has passed the Fifth Semester in Landscape Architecture Examination conducted by the prescribed Authority. In case of failure in the Filth Semester Examination, the candidate will be permitted to join the Sixth Semester provided the candidate had obtained a minimum of 50% Marks in Landscape Design.

5859 A candidate who has passed the Fifth Semester Examination and has Satisfactorily completed the course of Sixth Semester will be permitted to appear for Sixth Semester Examination in Landscape Architecture.

R 5860 The following are the syllabi in various subject of the sixth Semester Examination in Landscape Architecture.

R 5861 The candidates will be examined in the following subjects as per Examination scheme for the Sixth Semester Examination in Architecture which will be conducted by University.

Post Graduate Studies in Landscape Architecture
Three years - Part Time

Semester VI

		Scheme of Instruction			Scheme of Exam			
Sr. No.	Subject	Lectures	Studio	Hrs. / Week	Internal Assessment	External Assessment	Written Exam	Max Marks
1	Landscape Design - III Thesis	0	14	14	500	250	0	750
	Total	0	14	14	500	250	0	750

POST GRADUATE STUDIES IN LANDSCAPE ARCHITECTURE

THREE YEARS – PART TIME

SEMESTER – VI TOTAL MARKS : 750

LANDSCAPE DESIGN – III THESIS

MARKS : *750*
CONTACT HRS./WEEKS : 14

The exercise would deal with complex problems of landscape architecture including site planning and landscape planning and seeks to develop the concept of landscape design as an interacting process of natural and man-made environment. In this studio search for formal expression of modern landscape architecture is heavily oriented upon the understanding of ecology.

Each student would be required to select a topic for individual project, before end of 5th Semester in consultation with faculty members.

The project as far as possible, should not be only design oriented, but should address to total landscape design approach comprehensively researched. The project work must clearly indicate students maturity in handling a project in a professional manner

Mode of evaluation : Continuos Studio review by Studio faculty and presentation of studio exercises for evaluation by external juries.

Evaluation : by studio faculty and External jury.

+ Sites above 50 Acers.

Total Studio Marks for Landscape Design Thesis : 750 (500 internal & 250 external)

—x x xxxxxx—

6/09/08

sd 34.

UNIVERSITY OF MUMBAI

No.UG/528 of 2008

CIRCULAR:-

The Principals of the affiliated colleges in Architecture are hereby informed that the recommendation made by the Ad-hoc Board of Studies in Architecture at its meeting held on 21st February, 2008 has been accepted by the Academic Council at its meeting held on 15th April, 2008 vide item No.4.16 and subsequently approved by the Management Council at its meeting held on 24th April, 2008 vide item No.16 and that, in accordance therewith, the Three Year (Part-time) Master of Architecture degree (Sem. I to Sem. VI) in Landscape is introduced by the University from the academic year 2008-2009.

Further that in exercise of powers conferred upon the Management Council under Section 54(1) and Section 55(1) of the Maharashtra Universities Act, 1994, it has made Ordinances 5746, 5747, 5748, 5749, 5750, 5751 and 5752 and Regulations 5838, 5839, 5840, 5841, 5842, 5843, 5844, 5845, 5846, 5847, 5848, 5849, 5850, 5851, 5852, 5853, 5854, 5855, 5856, 5857, 5858, 5859, 5860 and 5861 relating to the scheme of examination including syllabus for the Three Year(Part-time) Master of Architecture degree (Sem. I to Sem. VI) in Landscape is as per Appendix and that the same has been brought into force with effect from the academic year 2008-2009.

MUMBAI-400 032
10th December, 2008

PRIN. K. VENKATARAMANI
REGISTRAR

****