# **STUDENT HANDBOOK**

Bachelor of Science Honours in Town & Country Planning (2022 / 2026)

Department of Town & Country Planning Faculty of architecture University of Moratuwa Sri Lanka



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**SECTION I** 

# INTRODUCTION

## Department of Town & Country Planning

## A MESSAGE FROM HEAD OF THE DEPARTMENT



Welcome to the Department of Town and Country Planning of the University of Moratuwa!

The Department of Town and Country Planning (TCP) vision is engrained in the pursuit of professional competency in spatial planning amidst distinct settings. It is the only planning department in Sri Lanka to offer programs at the Bachelor's, Master's, and PhD levels in collaboration with allied disciplines and professions. I am pleased that you have chosen the Town and Country Planning programme and wish you will pursue your future careers in this field.

The course curriculum has multi-disciplinary inputs and offers a great variety of subject modules. It meets high standards at local and international levels while addressing the vital need of graduates to be open-minded, creative, and innovative within a broader development of knowledge and values. By enrolling in the Bachelor of Science Honours in Town & Country Planning programme, you have been privileged to be a member of the Institute of Town Planners Sri Lanka.

Town Planners of the day have many challenges in front of them that are enduring inevitable changes over time. The most pertinent challenge is planning and designing of human settlements that provide conducive environments to live in, harmonious integration with the country's natural settings, capacity to thrive, space for long-lasting cultural practices, strength to withstand both natural and manmade disasters and diseases, an arena for greater economic and socio-political freedom, and links to integrate with global trends in science and technology. The Department of Town and Country Planning is geared with experience, expertise, infrastructure, and state-of-the-art technology to enrich and equip you, the future Town Planners, to face these challenges with confidence.

By selecting a career in Town and Country Planning, we are pledged to take an interdisciplinary approach towards building a great nation that will have vivid and pleasant communities to live in and to sustain resources with a great respect to our motherland. It is your duty to acquire knowledge and equip with skills required for this timely task by making maximum use of the opportunities and resources made available to you throughout the course of study.

We are here to support you to the best of our capacity on your journey in this university, and I wish you a rewarding experience ahead.

#### Dr. A. L. Susantha

Head/ Department Town and Country Planning

## DEPARTMENT OF TOWN & COUNTRY PLANNING UNIVERSITY OF MORATUWA, SRI LANKA

The Department of Town & Country Planning was established in October, 1973 as a fullyfledged Department of the Faculty of Engineering of the Katubedda Campus. With the establishment of University of Moratuwa in 1978, the Department was placed within the Faculty of Architecture. Since then, it has been one of the four Departments in the Faculty of Architecture in University of Moratuwa, Sri Lanka.

From the date of its commencement until 2003, the Department was conducting Post Graduate level studies in Town & Country Planning. The first course leading to Master of Science in Town & Country Planning was commenced in July 1975. So far, more than 250 persons have obtained the qualification in Master of Science in Town & Country Planning. In addition, the Department also offered Post Graduate Diploma in Urban Development since 1979, in collaboration with the Urban Development Authority of Sri Lanka, qualifying more than 150 persons. Two more courses leading to Master of Science Degree in Land use Planning & Resource Management and, Post Graduate Diploma in Housing Development were also offered once each. In 2012, the Department introduced a Master of Science Degree course in Spatial Planning, Management and Design in collaboration with La Trobe University Australia.

However, having felt the present need of Sri Lanka to have more numbers of fully-fledged planners, the Department had extended its scope to conduct Undergraduate level Degree program in the field of Town and Country Planning. As a result, the pioneering four years Degree course in Bachelor of Science Honours in Town & Country Planning was commenced in 2003. Based on the performance of GCE (Advanced Level) results, this degree course enrolls 50 candidates for each intake.

All the courses and other academic matters within the Department are conducted in English medium. Motivating 'Integrated Spatial Planning', the Department always encourages the multidisciplinary approach in Planning and therefore, all of its courses comprise of subject modules from a wide range of fields, whilst the members of the academic staff come from different disciplinary background. In order to encourage and facilitate research interests among both academic members and the students, and also to provide opportunities for external researchers, the Department has established a Research Unit, where a number of research activities are being carried out.

## ACADEMIC STAFF OF THE DEPARTMENT

The full-time multi-disciplinary academic staff members of the department conduct both undergraduate and post graduate courses. The specialist visiting staff members from other universities, research institutions and state organizations are invited time to time for the lectures of specialization.

#### **DEPARTMENT STAFF**

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Professor

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Lecturer (Probationary)

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## ACADEMIC SUPPORTIVE STAFF OF THE DEPARTMENT

Resource Person	Position	Contact	
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## RESOURCES

In order to facilitate its teaching, learning and research activities, the Department is accomplished with the state-of-the art teaching technology and learning infrastructure.

The Spatial Information and Remote Sensing Laboratories of the Department is equipped with the latest updates of spatial information technology. Students have access to networked computers with Satellite Communication facilities at the laboratory. Considering the current global trends of converging towards Open Source Geographical Information Systems (GIS), an Open Source Geospatial Laboratory has been established in the Department. This is the 56<sup>°</sup> OSGeo Laboratory in the world, recognized by the Open Source Geospatial Foundation.

The OSGeo Laboratory focuses upon the applications of Open Source software in Urban Planning, research on developing software and hardware applications in urban analysis, and promoting open source GIS among Urban Planners. The students at both

Undergraduate and Post Graduate levels are provided with training in this technology in order to develop their knowledge skills in handling spatial information systems and in related areas that is essential for modern planning activities.

Many of the subject modules in the course programs are highly 'Design' oriented, in order to sharpen sensitivity and the creativity of the students, and to promote The Design orientation is innovation. facilitated within the Studio space of the Department, where the students undertake hands-on exercises and actively participate in studio events as well as field work that deal with the ground reality. In studio events the students beyond qo setting conventional class room and engage in interactive sessions that enables self-learning and learning-by-doing.

The Town & Country Planning Research



OSGeo Laboratory



Design studios

Unit

facilitates the Research and Development within the Department. The Department is equipped with capacity to undertake both research and development consultancies for outside agencies in the areas relevant to Spatial Planning, Information Systems, Socioeconomic development, Capacity Building, Computer Program development, etc. All undertakings are subject to University policies and guidelines.

## **CONTACT DETAILS**

The address of the Department is as follows:

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Fax No. : 011 – 2650921 (attention Dept. of Town & Country Planning)

The Department presently occupies a building that consists four studios (Level III and IV), one common hall (Level V), a fully facilitated auditorium (Ground floor), one mini auditorium (Ground floor), staff rooms (Level II), and two SIS/RS Laboratories (Level I of the TCP building and at Level I of Architecture extension building).

## **SECTION II**

# **PERFORMANCE CRITERIA**

for the Award of Degree of Bachelor of Science Honours in Town & Country Planning

## PERFORMANCE CRITERIA

A student admitted to the course leading to the Bachelor of Science Honours in Town & Country Planning will be eligible to receive the Bachelor of Science Honours in Town & Country Planning provided that the student has successfully fulfilled the following conditions as determined by the Senate of the University of Moratuwa:

## 1.0. Admission

**1.1.** The admission requirements to the Bachelor of Science Honours in Town & Country Planning shall be determined by the University Grants Commission (UGC) in accordance with the government policy.

## 2.0. Program

**2.1**. The academic calendar of the course consists of eight academic semesters, each 15 weeks in duration.

## 3.0. Registration

**3.1**. At the commencement of each semester, students shall complete the prescribed Registration Process and pay the prescribed fees and other dues as determined by the University Senate.

**3.2.** Each student shall be responsible for the selection of course modules as required by the course structure approved by the University Senate, subject to availability of the modules.

**3.3.** A student who wishes to de-register from a module shall do so in writing within two (02) weeks of the commencement of the semester. De-registering a module after this deadline shall not be allowed and shall be regarded as a missed attempt, even if the student does not appear for any assessment and/or examination in that module.

**3.4.** A student who wishes to take an additional module or a replacement for a de-registered module may do so within two (02) weeks of the commencement of the semester with the approval of the Academic Advisor.

## 4.0. Course Structure

**4.1**. The program of study leading to the award of the Bachelor of Science Honours in Town & Country Planning consist of four levels which includes:

Compulsory modules extending over the four levels that are organized under the developmental stages such as Conceptualization, Synthesis, Analysis and Product.

Level Two, Level three and Level four of the Degree program offer Elective modules under various areas.

In the Level 2 semester 4, Level 3 semester 5 and Level 3 semester 6, the students are expected to select one 'studio module' out of three electives 'studio modules' offered.

## 4.3. Credits

Each module is assigned a credit value representing the student's workload. For a lecture module extending over one semester, one credit shall be assigned for each lecture hour of fifteen weeks. For a Studio Work, Field Work and Lab Work extending over one semester, one credit shall be assigned for three hours of studio, field, and lab work per week respectively. For Internship module offered in Level 4 semester 7, one credit shall be assigned for one month of full-time training period.

## 4.4. Leave of Absence

A student may be allowed to submit an application for leave of absence from the course of study for a maximum duration of twelve calendar months, for a determination by the University Senate on the recommendation of the Faculty Board.

## 5.0. Evaluation of Performance

The performance of students in each module shall be separately assessed by continuous assessments and/or end-of-semester examinations.

## 5.1. Academic Rating

Letter grades based on the Grade Point System (GPS) and the corresponding percentage marks as illustrated below will be used to express the performance in each module.

Guideline Grade Boundaries (%)	Grade	Grade Point	Interpretation
85 and above	A+	4.20	Outstanding
75 – 84	А	4.00	Excellent
70 – 74	A-	3.70	Highly recommended
65 – 69	B+	3.30	Very good
60 - 64	В	3.00	Good
55 – 59	B-	2.70	Average
50 – 54	C+	2.30	Satisfactory pass <sup>(a)</sup>
45 – 49	С	2.00	Pass and possess basic understanding of the Module
40 – 44	C-	1.50	Weak pass <sup>(c)</sup>
35 – 39	D	1.00	Conditional pass <sup>(b)</sup>
34 and below	1	0.00	Incomplete <sup>(f)</sup>
34 and below	F	0.00	Fail(9)
	N	-	Academic concession <sup>(h)</sup>
	Р	-	Pass in Non-GPA Module

Notes:

- a) Grade (C+) or above, is required to earn a credit for the 'studio modules' offered in Level 2 semester 4, Level 3 semester 5 and Level 3 semester 6, Individually Supervised Research Project (ISRP) offered in Level 4 semester 7 and Individually Supervised Site Planning and Design Studio Project offered in Level 4 semester 8.
- b) Grade (D) or above, is required to earn a credit for all the other modules (except the modules listed in (a) above).
- c) A student who has obtained a Grade below (C) for any module may repeat the module and improve the grade to a maximum of Grade (C) to be considered for the Semester Grade Point Average. In the case of the modules identified under (a) above, a student who has obtained a Grade below (C+) shall repeat the module and improve the grade to a maximum of Grade (C+) to be considered for the Semester Grade Point Average.
  - d) A student obtaining a grade below (C+) but a grade (D) or above for "Individually Supervised Research Project (ISRP)" and "Individually Supervised Site Planning and Design Studio Project" shall be given a maximum of six weeks duration to improve and resubmit her/his project

work. Such submissions shall be re-assessed (through a viva-voce examination, if deemed necessary by the examiner) and the initial grade obtained shall be upgraded to a maximum of (C+), if the improvements are satisfactory. if the improvements are not satisfactory, student shall receive grade (F).

- e) A student fails to upgrade to (C+) under circumstance given in (d) above or a student receiving a grade below (D) for the "Individually Supervised Research Project (ISRP)" and "Individually Supervised Site Planning and Design Studio Project" shall repeat the module/s in a subsequent academic year.
- f) A student receiving less than 35% in either the continuous assessment or written examination (for modules assessed through continuous assessment and end-of semester examination) shall receive an incomplete (I) grade. The student shall repeat only the failed component as a repeat candidate to complete the module. The maximum grade obtainable by such a repeat candidate is (C).
- g) A student receiving less than 35% in both the continuous assessment and the end-of-semester examination (for modules assessed through continuous assessment and end-of-semester examination) shall receive a Fail Grade (F). The student shall repeat both the continuous assessment as well as the end-of-semester examination until a pass grade is obtained. The maximum Grade obtainable by such a repeat candidate is (C).
- h) Grade N signifies Academic Concession granted with the approval of the Senate, on the recommendation of the Faculty Board, in the event a student is unable to sit for the end-of-semester examination due to illness or other compelling reasons. In such instances, the student must appeal for an Academic Concession as specified in Section 5.6. The continuous assessment component of the student's work may be carried forward to the next examination as the first attempt. The grade will not be counted for the calculation of the Semester GPA.

i) The Senate shall appoint subject Moderators as recommended by the Faculty to moderate the grades.

### 5.2. The Board of Examiners

A Board of Examiners appointed by the Senate on the recommendation of the Faculty Board comprising of Examiners and Moderators of all modules will meet at the end of each semester to decide on the performance and academic rating of each student registered for that semester.

### 5.3. Semester Grade Point Average (SGPA)

The calculation of the Semester Grade Point Average (SGPA) shall be based on the summation of Grade Points earned for all modules registered for credit [except those awarded with Academic Concession] in a semester weighted according to number of credits as given in the formula below:

$$SGPA = \frac{\sum n_i \times g_i}{n}$$

Where  $n_i$  is the number of credits for the i<sup>th</sup> module in a given semester and  $g_i$  is the Grade Point earned for that module; n is the total number of credits for that semester.

## 5.4. Unsatisfactory Standing & Academic Probation

If the student's Grade Point Average falls between 1.50 and 2.00 the student will be placed Academic Warning. Any student with a SGPA less than 1.50 will be placed on Academic Probation. Academic probation and/or Academic Warning may be withdrawn when the relevant SGPA is upgraded to 2.00 or more. A student on academic Warning or academic Probation will not be allowed to carry any additional academic load. A student who falls into one of the following categories due to failure to upgrade the SGPA will be temporarily discontinued from the course:

- i. SGPA < 1.50 in any two semesters;
- ii. SGPA < 1.50 in any semester and 1.50  $\leq$  SGPA < 2.00 in any two semester;
- iii.  $1.50 \leq$  SGPA < 2.00 in any four semesters.

### 5.5. Award of Classes

The award of Class is determined at the completion of all the graduation requirements based on the Overall Grade Point Average (OGPA) cut-off as indicated below. A class may be awarded only to a student who has completed all graduation requirements with in five (05) academic years.

OGPA	Academic Standing
3.70 or above	First Class
3.30 - 3.69	Second Class – Upper Division
2.70 - 3.29	Second Class – Lower Division
2.00 – 2.69	Pass

#### 5.6. Academic Concession

**A.** A student who has missed end-of-semester examination/s or continuous assessment/s due to illness or other compelling reasons, shall strictly follow the procedures laid out in the regulation 15.1 (Procedure for academic concessions) under the By-Law 15 for "conduct at examinations".

(i) For consideration of academic concession on medical or compassionate grounds, the student/ parent/ guardian should inform the SAR Examinations within 7 days that he/she is unable to sit the examination by telegram, email, registered letter or a fax and submit supportive document/s, as specified in the regulation 15.1, covering the period of the examination within 01 (one) calendar month after the last date of the examination.

(ii) For consideration of academic concession on Representation grounds (when selected to represent University at Inter-University, National or International events), the student should inform the SAR Examinations that he/she is unable to sit the examination, and submit authenticated documents covering the period of examination **01 (One) calendar month before the first date of the examination** for consideration.

(iii) In the case of students missing continuous assessment component/s, on medical or compassionate grounds, the student should inform the relevant Lecturer that he/she is unable to face the continuous assessment and submit supportive documents, as specified in the regulation 15.1, covering the period of continuous assessment within two weeks of the event for consideration by the examiner of the module. When it is on

representation grounds, the student should inform the relevant Lecturer **in advance** that he/she is unable to face the continuous assessment and submit authenticated documents covering the period of continuous assessment for consideration by the examiner of the module.

**B.** All applications for concessions for absence shall be on prescribed form (obtainable at the Examinations Division) and are subject to approval by the University Senate.

## 5.7. Dean's List

A full time undergraduate student who obtains an SGPA of 3.80 or greater in any one semester may be recommended by the Board of Examiners to be included in the Dean's List provided all of the following conditions are met:

- i. The student has completed the minimum number of credits during the semester;
- ii. The student has no "Incomplete" or "Failure" grades
- iii. The student was not subject to disciplinary action.

Such a placement will also be noted on the student's transcript.

## 6.0. Graduation Requirements

**6.1** A student enrolled for the Bachelor of Science Honours in Town & Country Planning shall follow a course of study as a full-time student for a minimum period of four academic years.

**6.2** A student shall satisfy the following requirements in order to be awarded to the Bachelor of Science Honours in Town & Country Planning:

A minimum total of 150 credits from the modules specified for the course of study;

Completion of courses and any other mandatory requirements prescribed by the Senate:

A minimum OGPA of 2.00

**6.3** A student will not qualify for the award of Bachelor of Science Honours in Town & Country Planning if the graduation requirements given in Section 6.2 are not satisfied within eight academic years from the date of first registration. However, approved leave on medical grounds shall be added to the eight

academic years when determining the maximum duration to complete the degree.

**6.4** Normally students are expected to complete their program through modules taken at the University of Moratuwa. Students who wish to take a module elsewhere should obtain approval from the senate on the recommendation of the Dean, Faculty of Architecture, before registering for the course, to ensure that it is acceptable for credit.

In such instance, it is the responsibility of the student to ensure that an official transcript of grades is forwarded to the Senior Assistant Registrar (Examinations) of the University of Moratuwa through Head of the Department to be recorded. To recognize Credit, a minimum grade of 'C' must be obtained for a module.

## 7.0. Effective Date of Award

The effective date of the degree shall be the last day of the month following the satisfactory completion of the graduation requirements as confirmed by the Senate.

## 7.1. Date of conferment of the degree

The date of conferment of the degree shall be the date of the convocation in which the degree is conferred on the candidate.

## 8.0. Definitions

"Department" means the Department of Town & Country Planning, Faculty of Architecture, University of Moratuwa as constituted by the Universities Act No. 16 of 1978, subsequently amended.

"Faculty" means the Faculty of Architecture, University of Moratuwa as constituted by the Universities Act No. 16 of 1978, subsequently amended.

"Faculty Board" means the Faculty Board of the Faculty of Architecture, University of Moratuwa as constituted by the Universities Act No. 16 of 1978, subsequently amended.

"Senate" means the Senate of the University of Moratuwa as constituted by the Universities Act No. 16 of 1978, subsequently amended.

"Registrar" is the Registrar of the University of Moratuwa as constituted by the Universities Act No. 16 of 1978, subsequently amended.

"Head of the Department" means the Head, Department of Town & Country Planning, University of Moratuwa as constituted by the Universities Act No. 16 of 1978, subsequently amended.

**SECTION III** 

# CURRICULUM

Bachelor of Science Honours in Town & Country Planning

		(	Credit	S			Evaluation	
Module code	Module Title	Compulsory	Elective	NGPA	Lecture hrs. per week	Project work/ Assign ment hrs. per week	CA%	WE%
PL1101	Introduction to Planning	03			03		20-40	60-80
PL1102	Planning and Design Studio I	03				09	100	
PL1103	Economics for Spatial Planning	02			02		20-40	60-80
PL1104	Ecology for Spatial Planning	02			02		20-40	60-80
PL1105	Society, Culture and Space	02			02		20-40	60-80
PL1106	Communication Technologies	03			01	06	100	
PL1107	Statistical and Quantitative Methods in Planning	Statistical and 02 02 Quantitative Methods			20-40	60-80		
PL1108	-1108 Effective Communication and Writing I			01		03	100	
Total cre	dits for Level 1/ Seme	ster 1:	18 cr	edits				
PL1201	Planning Methods and Policies	02			02		20-40	60-80
PL1202	Planning and Design Studio II	03				09	100	
PL1203	Introduction to Real Estate	02			02		20-40	60-80
PL1204	Quantitative Ecology	02			01	03	100	
PL1205	Housing and Resettlement Planning	02			02		20-40	60-80
PL1206	Geo-informatics for Planning	02				06	100	
PL1207	Qualitative Methods in Planning	02			02		100	
PL1208	Building Material and Construction Technology	01				03	50	50
PL1209	Effective Communication and Writing II			01		03	20-40	60-80
Total cre	dits for Level 1 / Seme	ster 2	: 17 c	redits	;			
PL2301	Planning Theory	02			02		20-40	60-80
PL2302	Planning and Design	03				09	100	

	Studio III							
PL2303	Land Management	02			02		20-40	60-80
PL2304	Applied Hydrology	02			02		20-40	60-80
PI 2305	Population Studies in	02			02		20-40	60-80
1 22000	Planning	02			02		20 40	00 00
PL2306	Spatial Data	02				06	100	
	Analytics and	-						
	Visualization							
PL2307	Planning Techniques	02			02		100	
PL2308	Traffic and	02			02		50	50
	Transportation							
PL2309	Drama			01		03	100	
Total cre	dits for Level 2 / Seme	ster 3	: 18 c	redits	;			
PL2401	Planning Law.	03	[	[	03		20-40	60-80
	Governance &				•••			
	Practice							
PL2402	Urban Housing		06		02	12	100	
	Studio*		00					
PL2403	Land Use Planning		06		02	12	100	
PI 2404	Ecology Landscape		06		02	12	100	
	Planning and Design		00		02	12	100	
	Studio*							
PL2405	Development	02			02		20-40	60-80
	Economics							
PL2406	Environmental	02			02		100	
	Modelling and							
	Assessment							
PL2407	Social Justice in	02			02		20-40	60-80
<b>DI 0 100</b>	Planning	00					400	
PL2408	Remote Sensing for	02			01	03	100	
DI 2400	Advanced	02			02		100	
PL2409		02			02		100	
	Qualitative Research							
	Methods							
PL2410	Introduction to	02			02		50	50
	Infrastructure							
	Planning and Design							
PL2411	Social Work			01		03	100	
Note: * St	udents shall choose one	e of the	ese ele	ectives	3			
Total for	Level 2 / Semester 4 :	22 cre	dits					
PL3501	Regional Planning	02			02		20-40	60-80
PL3502	Coastal Regional							
	Planning and Design		06		02	12	100	
	Studio*							
PL3503	Eco-sensitive							
	Regional Planning		06		02	12	100	
	and Design Studio"	1	1		1		1	1

PL3504	Agro Regional							
	Planning and Design		06		02	12	100	
<b>B</b> I 0505	Studio*							
PL3505	Urban Economics	02			02		20-40	60-80
PL3506	Eco Sensitive	02			02		100	
<b>B</b> I 0505	Planning Concepts							
PL3507	Political Economy of	02			02		20-40	60-80
DI 0500	Space	0.4					100	
PL3508	Advanced GIS and	01				03	100	
	Remote Sensing for							
DI 2500	Pidlilling Spatial Madaling and	02			01	02	100	
PL3009	Spatial Modeling and	02			01	03	100	
PI 3510	Regional	03			03		100	
1 20010	Infrastructure	00			00		100	
	Planning and							
	Designing							
PL3511	Planning Ethics	02			02		100	
Note: * St	tudents shall choose one	e of th	ese ele	ectives	5			
Total for	Lovel 2 / Compation E .	22.04	a dita					
Total for	Level 5 / Semester 5 :		eaits	1	1			
PL3601	Cities and Urban	02			02		20-40	60-80
<b>B</b> I 0000	Forms		07			45	100	
PL3602	Coastal City Planning		07		02	15	100	
	and Design Studio"		07		00	45	100	
PL3603	Heritage area		07		02	15	100	
	Studio*							
PI 3604	Transit city Planning		07		02	15	100	
1 20004	and Design Studio*		07		02	10	100	
PL3605	Real Estate	02			02		20-40	60-80
	Development							
PL3606	Planning for Climate		01			03	100	
	Resilience**							
PL3607	Participatory	02			01	03	100	
	Planning							
PL3608	Urban Informatics**		01			03	100	
PL3609	Project Formulation	02			02		20-40	60-80
	and Appraisal							
PL3610	Urban Infrastructure	03			03		100	
	Planning and							
	Designing							
Note: * St	tudents shall choose one	e of th	ese ele	ectives	s and			
** 5	Students shall choose or	ne of t	hese e	lective	es			
Total for	Level 3 / Semester 6 :	19 cre	edits					
PL4701	Research Methods	02			02		100	
PL4702	Individually	11			03	24	100	
	Supervised Research							
	Project (ISRP)							
PL4703	Academic Writing	02			02		100	

PL4704	Internship			04			100					
Total for Level 4 / Semester 7 : 19 credits												
PL4801	Urban Design	02			02		100					
PL4802	Individually Supervised Site	08			03	15	100					
	Planning and Design Studio Project											
PL4803	Project Management	02			02		20-40	60-80				
PL4804	Environment Management Systems*		01			03	100					
PL4805	Urban Regeneration and Conservation*		01			03	100					
PL4806	Computer Programming and Artificial Intelligence*		01			03	100					
PL4807	Public Project Financing	02			02		20-40	60-80				
Note: * St	tudents shall choose one	e of the	ese ele	ectives	6							
Total for	Level 4 / Semester 8: 1	15 cre	dits									
Total credits for the Programme150												
C- Comp	ulsory	NGP	NGPA- Non Grade Point Average									
E- Electiv	e Ndo Doint Average		CA- Continuous Assessment									
GPA- Grade Point Average   WE- Written Examination												

## **SECTION III**

Level One - Semester One

**Course Modules** 

## **Conceptualization Stage**

MODU CODE	LE E	Introdu	ction to F	Planning	LEVEL1
PLIIC	1				SEMESTER I
Credits	03	Lecture hours	45	Assessment Method	CA- 20-40%

- 1. To acquire knowledge on the fundamentals of planning and design
- 2. To understand the use of planning and design concepts in real life events
- 3. To demonstrate the thought process in planning and design skills in practical situations.

## Learning Outcomes

After completing the module, students will be able to:

- 1. demonstrate a comprehensive understanding of the core concepts associated with planning and designing (objective1)
- 2. conceptualize and describe the form and the content of a human settlement for a planning purpose (objective1)
- 3. understand the sequential and reiterative processes involved in decision-making in development activities (objective 2 & 3)
- 4. actively participate in discussion forums of contemporary plans, programs, and policies which guide development (objective 3)

## **Outline Syllabus**

- The concepts, terminology and definitions used in planning and design processes.
- Introduction to methods and processes of planning and designs
- Evolution of the civilizations and spatial organization of human settlements
- History of Modern Planning in Europe and in Sri Lanka
- Human settlements and planning interventions (understanding of the models)
- The institutionalized planning process in Sri Lanka and different scales of Development Plans
- The role of the Town Planner in the development
- Development Plans in Sri Lanka (visit to UDA, NPPD and review of Plans)
- Challenges for Spatial Planning in Sri Lanka

MODU COD	ILE E	Planning	LEVEL1		
PL110	02	S		SEMESTER I	
Credits	03	Lecture hours per semester	135	Assessment Method	CA- 100%

- 1. To develop skills in observing, recording, and presenting the characteristics, patterns and spatial information of an environment.
- 2. To be trained to analyze and interpret a micro scale environment as a configuration of masses, volumes, movements, and patterns.
- 3. To develop an awareness of methods of sourcing information from various apparent, rhetoric, published and unpublished sources.

## Learning Outcomes

After completing the module, students will be able to:

- 1. record and present an environment through drawings, graphics and other modes of presentation (objective 1)
- 2. conceptualize the spatial and non-spatial attributes of an environment and communicate them with graphical and other modes of presentation (objectives 1 & 2)
- conduct reconnaissance surveys and prepare situation reports (objectives 2 & 3)

## **Outline Syllabus**

- Field reconnaissance methods
- Data collection and processing methods and techniques
- Methods of interpreting field observations and recordings
- Drawing as a communication tool
- Use of drawing to express environmental characteristics
- Working sessions on free hand drawing
- Methods and techniques in graphic communication
- Introduction to 2D/3D drawings
- Limitations of data sourcing

	LE E	Economi	cs for Sp	oatial Planning	LEVEL1
PL110	)3		SEMESTER I		
Credits	02	Lecture hours per semester	30	Assessment Method	CA- 20-40% WE- 60-80%

- 1. To recognize the economic dimensions of spatial planning.
- 2. To interpret basic principles in Microeconomics and Macroeconomics and their use for an analysis of economic issues.

## Learning outcomes

After completing the module, students will be able to:

- 1. relate economic dimensions to spatial planning (Objective 1)
- 2. illustrate the forces of supply and demand in determination of prices within different economies (Objective 2)
- 3. Interpret micro- and macro-economic changes related to the markets. (Objective 2)

## Outline syllabus

- Nature and scope of economics
- Introduction to the economy of a human settlement
- The concepts of Demand and Supply
- The Concepts of elasticity
- Theory of consumer behavior
- Types of economic systems
- Types of markets and their characteristics
- Introduction to macro economics
- Major issues related to the economy

MODU COD PL11	JLE E 04	Ecology for S	patial Pla	nning	LEVEL1 SEMESTER 1
Credits	02	Lecture hours	30	Assessment Method	CA- 20-40% WE- 60-80%

- 1. To acquire knowledge on the components and processes of ecosystems
- 2. To relate diverse ecosystems and their functions
- 3. To identify human interventions on the processes of natural ecosystems

## Learning outcome

After completing the module, students will be able to:

- 1. identify the interactions between natural systems and the built environment (objective 1 & 2)
- describe the environmental issues at local and global context (objective 3)

## **Outline Syllabus**

Basic principles of ecology

- Components and processes of natural ecosystems
- Functions and interactions of natural ecosystems
- Ecological Diversity

Urban environment as an anthropogenic biome

- Eco-centric and Anthropocentric approaches and environmental paradigms
- Environmental sustainability
- Human effects on biogeochemical pathways
- Landscape ecology and fragmentation
- The impact of the urbanization on climate (Urban heat island effect, Greenhouse gases)
- Current issues related to the environment

MODULE CODE		Society, Culture and Space			LEVEL1
PL1105			SEMESTER I		
Credits	02	Lecture hours per semester	30	Assessment Method	CA- 20-40% WE- 60-80%

- 1. To understand theories and concepts related to society and culture
- 2. To understand the urban and rural societies and the urbanization process and its impacts in South Asia and Sri Lanka
- 3. To illustrate a city as a symbolic environment and the relationship between culture and the built environment
- 4. To demonstrate urban and regional socio-cultural issues
- 5. To develop skills in carrying out socio-economic surveys

## Learning Outcomes

After completing the module, students will be able to:

- 1. understand the importance of the socio-cultural dimensions in spatial planning (Objective 1 and 2)
- 2. Demonstrate the characteristics of a society in an urban context through its spatial attributes and the process of urbanization. (Objective 3 and 4)
- 3. Discuss urban and regional socio-cultural issues in the light of theories and concepts. (Objective 4)
- 4. carry out a socio-economic survey and analyze the survey findings for a planning purpose (Objective 5)`

## **Outline Syllabus**

- Basic concepts in Sociology
- The urbanization process and the urbanization in Asia
- Social groups, social interactions, culture and the built environment
- The idea of "planning for people"
- The city as a symbolic environment
- Functionalism, Modernism, Post modernism, Social Constructionism, New Urbanism and reading the city from these viewpoints
- The role does the city in an information age and the function does of the city in the era of globalization
- Socio-Spatial approach towards spatial planning
- Social issues, Problems and Gentrification of the city
- Social surveys and analytical methods

		Communication Technologies			LEVEL1
PL1106					SEMESTER I
Credits	03	Lecture hours per semester	105	Assessment Method	CA-100%

- 1. To recognize latest technologies available to visualize spatial information
- 2. To engage students with different technologies in a series of hand-onexercises.

## Learning Outcomes

After completing the module, students will be able to:

- identify latest technologies available to visualize spatial information (objectives 1)
- 2. visualize spatial information through computer-based applications (objective 2)

## **Outline Syllabus**

- Introduction to Spatial Information Systems (SIS) and Aerial Photography
- Coordinate systems and map projections
- Data exploration, querying and geo-processing
- GPS technology
- Introduction to graphical and modeling software AutoCAD, Sketch Up and Photoshop
- Infographic
| MODULE<br>CODE |    | Statistical and Qua           | Statistical and Quantitative Methods in |                      |                          |
|----------------|----|-------------------------------|---|----------------------|--------------------------|
| PL11           | 07 | P                             | Planning                                |                      |                          |
| Credits        | 02 | Lecture hours<br>per semester | 30                                      | Assessment<br>Method | CA-20-40%<br>WE- 60- 80% |

- 1. To apply appropriate statistical and quantitative methods to comprehend a given situation and logical reasoning in planning
- 2. To be equipped with a variety of technical and analytical skills useful in studies at the subsequent levels.

# Learning Outcomes

After completing the module, students will be able to:

- 1. identify quantitative reasoning of collecting, presenting, analyzing and interpreting data including the use of spreadsheets and statistics software (objectives 1 & 2).
- apply statistical and quantitative methods in the decision-making processes for problem solving, including sample surveys, designing the surveys, analysis of information, measuring central tendency and dispersion of a data set, deriving equations for relationships and structural analysis (objectives 1 & 2).

- Data Collection: Probabilistic and Non-Probabilistic Sampling
- Basic Data Presentation: Methods of Graphic presentation
- Univariate Statistical Methods: frequency distribution, class limits, curves, cumulative frequency distribution, ogives, measures of central tendency, measures of absolute dispersion, skewness and kurtosis.
- Probability Theory and Probability Distribution: addition rule, conditional probability, multiplication rule, random variables and probability distribution, mathematical expectation; Binomial distribution, poison distribution and normal distribution
- Introduction to computer-based quantitative data analysis software (SPSS etc)
- Mathematical Techniques: Principles of Geometry, Trigonometry and applications in Land subdivisions, Dimension analysis and formulating equations for relationships, Principles of Scalars and Vectors in structural analysis
- Mathematical Techniques: Linear programming problems, Principles of Calculus and optimization problems in decision making
- Decision Theory: Decision making under conditions of certainty, uncertainty, and conditions of risk, decision trees, pay off matrix, applications in planning

MODU COD PL11	JLE )E 08	Effective Communication and Writing I NGPA			LEVEL1 SEMESTER I
Credits	01	Lecture hours per semester	45	Assessment Method	CA- 100%

- 1. To improve the competence in oral and written communication skills in the English language
- 2. To develop listening and comprehension skills to suit planning discipline
- 3. To make use of appropriate learning resources to help improve independent learning strategies
- 4. To produce written texts of various types, develop an argument, describe or recount events and observe the conventions of the genre

# Learning Outcomes

After completing the module, students will be able to:

- 1. Work satisfactorily with enhanced capacity in English by using range of resources and modes of communication (objectives 1 & 2)
- 2. Present, discuss and summarize planning issues and information in academic setting (objective 2 & 3)
- 3. Carry out interpersonal dialogues and undertake tasks with team spirit (objectives 1, 2 & 3)
- 4. Communicate effectively and independently in an academic context through well-structured and coherent arguments (objectives 4)

- Effective use of grammar and vocabulary
- Listening sessions with the use of local and international materials
- Reading and comprehension lessons with the use of local and international reading materials
- Writing skill improvement lessons
- Speaking sessions
- Evaluation of planning reports and interpret the content to an audience
- Participation at interaction sessions on planning related topics and express views in English
- Understand the real ground scenarios and interpret in English language
- Use of academic resources (soft & hard-copy form) and understand the content to elaborate as a team
- Listen/ watch multimedia documentary and conduct interactive discussions

Level One - Semester Two

**Course Modules** 

**Conceptualization Stage** 

MODU COD PL12	MODULE CODE Planning Met PL1201		lethods ar	nd Policies	LEVEL 1 SEMESTER II
Credits	02	Lecture hours per semester	30	Assessment Method	CA- 20-40% WE- 60-80%

- 1. To understand different levels of formulating policies and their implementation mechanisms in Spatial Planning.
- 2. To illustrate the different approaches in the policymaking process.

# Learning Outcomes

After completing the module, students will be able to:

- Interpret policies considering different aspects of spatial planning. (Objective 1)
- 2. review existing policies applicable at different levels (Objective 2)

- Planning methods
- What is a policy
- The procedure of Policy formulation and implementation
- Alternative approaches to planning (Synoptic, incremental, transitive, advocacy, rational and strategic)
- Policy analysis, formulation, and evaluation
- Policy framework for the convergence of local authority functions & the plan
- National physical planning policy & its compliance to regional & local plans

MODU CODI PL120	LE E )2	Planning and	d Design Studio II		LEVEL 1 SEMESTER II
Credits	03	Lecture hours per semester	135	Assessment Method	CA-100%

- 1. To be trained to study the built environment from multi-dimensions related to space, activities, time, meanings and socio-cultural norms.
- 2. To understand space, objects and functions as systems and processes.
- 3. To be sensitive to spatial and non-spatial aspects and micro level details of the built environment.
- 4. To orient towards design-thinking.

#### Learning Outcomes

After completing the module, students will be able to:

- 1. conceptualize the built environment as a complex process of organizing space, objects, activities and non-spatial aspects (objectives 1 & 2)
- 2. demonstrate sensitivity towards intricate elements of a built environment (objectives 2 & 3)
- 3. interpret a built environment and its qualities for a design purpose (objective 3 & 4)

- Theories and principle involved in planning and urban design
- Scale, two-dimensional, three-dimensional and multidimensional appreciations
- Practical frameworks of urban design, people and place, and spatial analysis
- Inter-relations between the society and space, built elements and natural settings of an environment, and the static elements and dynamic processes of a built environment.

MODU COD PL12	JLE DE 03	Introducti	on to Rea	l Estate	LEVEL 1 SEMESTER II
Credits	02	Lecture hours per semester	30	Assessment Method	CA- 20-40% WE- 60-80%

- 1. To describe the dynamics of land as a main resource of planning.
- 2. To explain the principle determinants of the demand for, the supply of, and the location of different types of properties and land uses
- 3. To examine market functions and the different actors in the property development process.

#### Learning outcomes

After completing the module, students will be able to:

- 1. recognize the dynamic character of land as a scarce resource, a commodity and a factor of production (Objective 1)
- 2. Demonstrate the functions of the real property market. (Objectives 2 & 3)
- 3. Compute land values in a given area. (Objectives 2 & 3)

- Real estate economics and settlement planning
- Definitions and perspectives of land and real estate
- Economics of price, value, rent and use of land
- Demand and supply of land
- Characteristics of the Real property market (real property market, real property rights, market efficiency, market failures and planning intervention in real property market)
- Functions of the real property market
- Actors of the real property market

MODU COD PL12	JLE )E 04	Quantita	ative Ecology		LEVEL 1 SEMESTER II
Credits	02	Lecture hours per semester	60	Assessment Method	CA-100%

- 1. To acquire basic knowledge and skills required to describe the quality of an ecosystem.
- 2. To interpret the baseline condition and quality of the ecosystem of a context

#### Learning outcomes

After completing the module, students will be able to:

- apply analytical techniques to describe the quality of an ecosystem (objective 1)
- 2. conduct an ecological survey in a given environment and interpret the ecological parameters (objectives 1 & 2)

- Ecological surveying and sampling techniques
- Species diversity, richness and evenness
- Measurement of noise, air quality, soil and geology environments
- Field survey for preparation of an ecological profile

MODU COD PL12	JLE DE 05	Housing and Rese	sing and Resettlement Planning		
Credits	02	Lecture hours per semester	30	Assessment Method	CA- 20-40% WE- 60-80%

- 1. To demonstrate the evolution of the housing policies and key features of the current housing policy in Sri Lanka
- 2. To understand the resettlement planning procedures
- 3. To express key issues in relation to the role of housing in urban and regional areas in Sri Lanka
- 4. To illustrate current development trends in the housing sector

# Learning Outcomes

After completing the module, students will be able to

- 1. interpret housing issues relating to housing policy (objectives 1 and 3)
- 2. Demonstrate evolutionary process of the housing system in Sri Lanka (objectives 1, 3 & 4).
- understand resettlement needs and prepare resettlement action plans (objectives 2 and 4)

- Institutional reforms and evolution of housing policy
- Contemporary practices and challenges in the housing sector of Sri Lanka
- Key issues in relation to the role of housing in society
- Principles of resettlement and procedures of resettlement planning

MODU COD PL12	JLE E 06	Geo-Informat	ics for Pla	nning	LEVEL 1 SEMESTER II
Credits	02	Lecture hours per semester	90	Assessment Method	CA- 100%

- 1. To discuss the fundamental concepts, functions and techniques of Geographical Information System
- 2. To utilize GIS software for developing spatial databases and models

#### Learning Outcomes

After completing the module, students will be able to:

- 1. identify the concepts, functions and limitations of Geographical Information System (objective 1)
- design basic spatial databases and models using GIS technology (objectives 1 & 2)

- Concepts of Geographical Information System (commercial and open source GIS)
- Preparing spatial databases and attribute data management
- Coordinate transformation
- Geo referencing & digitizing
- Location Based Services
- Real-time urban monitoring
- Geo-loT and its applications

MODU COD PL12	JLE )E 07	Qualitative I	Methods in Planning		LEVEL 1 SEMEST ER II
Credits	02	Lecture hours per semester	30	Assessment Method	CA-100%

- 1. To apply appropriate qualitative data collection methods and qualitative data analysis techniques to comprehend a given situation and the logical reasoning for planning.
- 2. To appraise skills in qualitative reasoning, making and criticizing arguments, stating and investigating hypotheses in planning exercises.

#### Learning Outcomes

After completing the module, students will be able to:

- 1. Identify qualitative data collecting, presenting, analyzing and interpreting methods (objectives 1).
- 2. Plan for basic qualitative studies, including planning for data collection through interviews, observations and/or surveys, prepare and carry out basic analysis of such data (objectives 1 & 2).
- 3. Apply a range of core qualitative methods and data analysis software in different problem solving exercises in planning (objectives 1 & 2).

- Sampling & methods of qualitative data collection and recording (observation, interview, questionnaire, focus group, case study, ethnography etc)
- Methods of Qualitative data analysis and visualization: Content analysis, cluster analysis, sentiment analysis
- Various styles of interpretation of qualitative data
- Introduction to computer based qualitative data analysis software (NVIVO etc)
- Ensure validity and reliability of findings of qualitative studies

MODU COD PL12	JLE )E 08	Building Materi Tec	al and Co hnology	nstruction	LEVEL 1 SEMESTER II
Credits	01	Lecture hours per semester	45	Assessment Method	CA-50% WE-50%

- 1. To recognize different building types and associated building materials
- To illustrate the construction process of each part of the building and steps in overall construction processes of different types of building projects
- 3. To apply innovative building materials and construction processes for sustainable growth
- 4. To appraise the roles of the professionals involved in building projects
- 5. To judge all council, technical and working drawings related to building development projects

#### Learning Outcomes

After completing the module, students will be able to:

- 1. Illustrate a building project relating to its structure, building materials, services, etc. (objectives 1 & 2).
- 2. Appraise construction steps and processes, and professional involvement (objectives 3 & 4).
- 3. Have skills for leading building development projects (objectives 4 & 5).
- 4. Apply practical and innovative planning and building regulations to development guide plans for a sustainable growth (objectives 4 & 5).

- Different parts of a building, materials and construction process of each part
- Overall steps of building development project
- Roles and works of professionals involved
- Technical details of different drawings
- Cost estimation and BOQ preparation
- Materials and construction processes of green buildings
- Building regulations in development guide plans
- Typology of buildings and building materials
- Types of construction technology used in buildings
- Types of materials in the construction industry, their qualities, production, storage and transportation process
- Production of Drawings and specifications for construction
- BOQ preparation

MODU COD PL12	JLE )E 09	Effective Commu II N	nication and Writing NGPA		LEVEL 1 SEMESTER II
Credits	01	Lecture hours per semester	45	Assessment Method	CA- 20-40% WE- 60-80%

- 1. To improve skills in verbal and graphical communication, writing and reporting
- 2. To develop inbuilt qualities to be a good presenter
- 3. To improve teamwork and self-confidence
- 4. To have exposure towards communication technology

# Learning Outcomes

After completing the module, students will be able to:

- Organize and make effective verbal and visual presentations (objectives 1).
- 2. Prepare technical reports on a given topic (objectives 1 & 2).
- 3. Document a situation or an event adopting basic principles of effective communication (objectives 2 & 3).
- 4. Use digital media as a source of communication (objectives 3 & 4).

- Idea generation methods and preparation methods for presentation/report writing.
- Script writing techniques and communication etiquettes.
- Methods of eradicating stage fear and effective public addressing.
- Communication skills for town planners and effective use of them.
- Use of visual aids in presentations and teamwork skills
- Bi-lateral communication methods.
- Technical report writing.
- Method of documentation of a topic or an event.
- Use of social media as a platform for communication.
- Digital Media and Videography for communication.

Level Two - Semester Three

**Course Modules** 

**Analysis Stage** 

MODU COD PL23	JLE )E 01	Planning	J Theory		LEVEL 2 SEMESTER III
Credits	02	Lecture hours per semester	30	Assessmen t Method	CA- 20-40% WE- 60-80%

- 1. To develop an understanding on different theories used in planning and design
- 2. To conceptualize and explain a human settlement in the light of different theories in spatial planning.
- 3. To develop skills in analyzing situations and issues prevalent in a human settlement from a theoretical perspective.

# Learning Outcomes

After completing the module students will be able to:

- 1. demonstrate a comprehensive knowledge in definitional, normative and substantive theories in planning (Objective 1)
- 2. conceptualize and discuss the organization of a human settlement relating to different planning theories (Objective 1)
- 3. interpret a given situation of a human settlement in the light of the theories learned (Objective 2)

- Definitional theories, and historic and modern Normative theories of planning human settlements
- Explaining a human settlement under different theoretical perspectives: a "Historic Process", a "Central Place", an "Agglomeration of Economic activities", a "Decision of location economics", a "Social-spatial Process", a "Place", a "Social Construction", a "Field of Forces", and an "Arena for Conflicts".
- Application of substantive theories to interpret built environments.
- A discussion on the forms of Sri Lankan towns

MODU	ILE		LEVEL 2		
PL23	02	Planning and	Design S <sup>.</sup>	tudio III	SEMESTER III
Credits	03	Lecture hours per semester	135	Assessmen t Method	CA - 100%

- 1. To advance the knowledge on the process of planning and design
- 2. To review local and international case studies to learn urban design products and processes.
- 3. To learn and explore methods of spatial planning and design to address issues related to micro scale-built environments.

# Learning Outcomes

After completing the module, students will be able to:

- 1. Conceptualize an urban environment relating to space, processes, meanings and identities (objectives 1 & 2).
- 2. Interpret how urban environmental features and patterns symbolize social identities and senses (objectives 2 & 3).
- 3. Produce an urban design scheme for a given location to strengthen the identity and sense of place (objectives 2 & 3).

- Study of the physical space in terms of masses, functions, place making processes and appropriations.
- Relationships between exterior and interior spaces as modulating interactions between public, semi-public, and private realms
- Study of the evolving nature of the urban environment
- Review of Urban Design papers and Case studies
- Projection of the future patterns of developments in an urban form and propose desired scenarios.
- The process of conceptualization of an urban area and the preparation of an urban design.

MODU COD PL23	MODULE Land Management CODE PL2303				LEVEL 2 SEMESTER III
Credits	02	Lecture hours per semester	30	Assessm ent Method	CA- 20-40% WE- 60-80%

- 1. To explain global trends in land management
- 2. To demonstrate different tools and techniques in effective management of land.
- 3. To examine the role of government intervention and land policy in creating conditions for sustainable land management.

# Learning outcomes

After completing the module students will be able to:

- appraise land management techniques in a real-life context (Objectives 1 and 2)
- discuss on the supportive infrastructure of land management for an enabling environment, to overcome barriers and encourage land administration (objectives 3)
- 3. compose land policy actions and reforms in Sri Lanka (objectives 3)

- Land management concepts and key components
- Key objectives and tasks of land management
- Areas of land management applications
- Land management techniques and process in national and international contexts
- Land acquisition, risk associated with land acquisition and land conflict
- Elements of land policy
- Land tenure systems, land administration (registration and cadastral systems)

MODU COD PL23	JLE )E 04	Applied H	Applied Hydrology		
Credits	02	Lecture hours per semester	30	Assessmen t Method	CA- 20-40% WE- 60-80%

- 1. To acquire knowledge on the functions and processes of hydrological systems
- 2. To analyze storms and flows to optimize hydrological pathways

#### Learning outcomes

After completing the module students will be able to:

- 1. diagnose the issues in the hydrological system (Objectives 1 & 2)
- estimate storms and flows to optimize hydrological pathways (Objective 2)

- Hydrologic Processes
  - Hydrologic system model
  - Water balance
  - Pathways and reserves of water (atmospheric water, subsurface water and surface water)
- Hydrologic Analysis
  - Hydrologic measurement
  - Hydrologic statistics
  - Storms and flows
  - Unit hydrograph
  - Frequency analysis
  - Hydro-meteorological risk and uncertainty

MODU COD PL 23	JLE )E :05	Population Stu	ation Studies in Planning		LEVEL 2 SEMESTER III
Credits	02	Lecture hours per semester	30	Assessmen t Method	CA- 20-40% WE- 60-80%

- 1. To define the concepts, theories and measurements of demography which essential to understand the history of population growth, changes in human population size and composition and future trends.
- 2. To apply the demographic measures in policy formulation and human settlement planning
- 3. To appraise the application of models of population projection and forecasting

#### Learning Outcomes

After completing the module students will be able to:

- 1. define and interpret the applicability of concepts, theories and measures of demography in different contexts (objectives 1,2 & 3)
- 2. formulate a Demographic Profile for a given area (objectives 2 & 3)
- 3. forecast populations for a given area under different scenarios of development (objective 3)

- Demographic Analysis in the Planning Process
- Sources of demographic data
- Demographic measures of population composition
- Concepts, measures, trends and issues on Fertility, Mortality, Migration, Nuptiality and Social Mobility
- History of population growth, Global variations in population measurements and growth
- Demographic transition theory and different population pyramids
- Population forecasting models
- Sub population estimates
- Population projection models
- Planning Implications and policy formulation in human settlement planning

MODU COD PL 23	JLE E 06	Spatial Data Analy	tics and <b>V</b>	/isualization	LEVEL 2 SEMESTER III
Credits	02	Lecture hours per semester	90	Assessmen t Method	CA- 100%

- 1. To acquire a comprehensive understanding of the theories, concepts and assumptions of spatial analysis and visualization methods.
- 2. To apply appropriate analytical and visualization tools for problem solving.
- 3. To interpret and demonstrate the results of spatial analysis of a context.

# Learning Outcomes

After completing the module students will be able to:

- 1. describe principles and methods to analyze a set of spatial data (objective1)
- 2. apply spatial models to analyze a given phenomenon (objectives 1 & 2)
- 3. Interpret and demonstrate the results of spatial analysis of a context (objective 3).

- Introduction to spatial data science and visualization
- Spatial interpolation and spatial continuity analysis
- Spatial statistics
- Temporal analysis
- 3D & 4D GIS data analysis
- Web analytics
- Citizen science data analysis
- Spatial analysis based on Location Based Services (LBS)
- Social media analytics
- Spatial data mining
- Web technologies for data visualization
- Multidimensional data visualization tools
- Augmented reality and virtual reality
- Data animation and dashboard

MODU COD PL <b>23</b>	JLE )E 6 <b>07</b>	Planning T	echniques	5	LEVEL 2 SEMESTER III
Credits	02	Lecture hours per semester	30	Assessment Method	CA-100%

- 1. To acquire knowledge on planning techniques as tools for rational decision-making at different stages of the planning process
- 2. To apply suitable planning techniques for validating and the analysis of information for resolving problem situations in settlements.

# Learning Outcomes

After completing the module students will be able to:

- 1. select appropriate planning techniques for rational decision-making at different stages of the planning process (objectives 1 & 2)
- 2. analyze a given problem situation applying appropriate planning techniques (objectives 1 & 2)

- Introduction to planning techniques
- Methodology and application of planning techniques (Sieve Map, Potential Surface Techniques, Sensitive Area Analysis Techniques, Space Syntax, Network Centrality Assessment, Settlement Ranking, SWOT analysis, Delphi Method, Analytic Hierarchy Process, Cost Benefits Analysis, Multi Criteria Analysis, Critical Path Analysis, Cause and Effect Analysis, Role Playing, Brainstorming)
- Evaluation of alternatives, goals and strategies using planning techniques

MODU COD PL <b>23</b>	JLE E <b>08</b>	Traffic and Tr	ansportat	ion	LEVEL 2 SEMESTER III
Credits	02	Lecture hours per semester	30	Assessmen t Method	CA -50% WE - 50%

- 1. To understand different planning processes on transportation planning
- 2. To identify different types of traffic and transport related surveys, surveying methods and their uses for decision making in transportation
- 3. To apply different transportation planning techniques for better integration of transport and land use
- 4. To illustrate travel demand forecasting and integrating the results in the formulation of different types of plans
- 5. To appraise how transportation is planned, implemented, operated and managed in Sri Lanka and recognize related prospects and constraints under each

#### Learning outcomes

After completing the module students will be able to:

- 1. prepare transport plans for identified study areas (objectives 1 & 2)
- 2. carry out different types of transportation surveys and use the results for better planning (objectives 2 & 3)
- 3. integrate transportation and land use in urban planning (objectives 3 & 4)
- 4. Apply transport models for quick and efficient transport demand forecasting (objectives 4 & 5)

- Transportation statistics in Sri Lanka
- Key concepts in traffic and transportation
- Transport planning processes
- Traffic and transportation surveys
- Capacity Assessments
- Traffic Impact Assessments
- Key components of transportation infrastructure
- Traffic forecasting and transport modeling approaches
- Transport policies

MODU COD PL 23	JLE )E 609	Drama (NGP	ΥΑ)		LEVEL 2 SEMESTER III
Credits	01	Lecture hours per semester	45	Assessmen t Method	CA - 100%

- 1. To develop skills in debate, reflection, and critical engagement from a range of perspectives
- 2. To strengthen self-confidence, expressive abilities in presentation and participate positively in constructive arguments through role play
- 3. To develop a high standard of communication skills, and skills of critical argument

# Learning Outcomes

After completing the module students will be able to:

- Build teamwork and communication skills to perform group activity and improve skills of organizing and management of events (objectives 1, 2 & 3)
- Critically assess questions or problems, and propose interpretative or explanatory solutions, and devise practical responses or outcomes (objectives 1 & 2)
- 3. Develop time-management, organizational and administrative skills, including the ability to plan and work to clear goals and objectives (objective 2)
- 4. Develop variety of performance skills to transfer the ideas into different audiences (objective 3)

- Expression of the elements of Drama
- Reading and writing of scripts
- Performing and appreciation of drama
- Acting and choreography, stage setting and discipline, costume design
- Effective communication

Level Two - Semester Four

**Course Modules** 

**Analysis Stage** 

MODU COD PL24	JLE )E 01	Planning Law Gove	ernance &	Practice	LEVEL 2 SEMESTER IV
Credits	03	Lecture hours per semester	45	Assessmen t Method	CA- 20-40% WE- 60-80%

- 1. To recognize the statutory responsibilities, powers and functions of the Planning agencies.
- 2. To understand statutory procedure in the preparation of plans at different levels.
- 3. To interpret the application of the concept of governance at different levels and the structures of governments.
- 4. To judge good urban governance practices and their significance for the functioning of a city and a state

#### Learning Outcomes

After completing the module, students will be able to:

- 1. review different planning related laws in Sri Lanka (objectives 1 & 2)
- 2. demonstrate a thorough understanding on the statutory institutions, planning procedures, and the enforcement of planning & building regulations, at different levels of planning (objectives 2 & 3)
- 3. demonstrate an understand on the citizens' rights, developers' rights and the obligations of the planner and the process of planning clearance for selected types of developments (objectives 3 & 4)

- Evolution of planning laws in Sri Lanka
- Planning legislations, duties, powers and functions of planning authorities
- Governance structure of Sri Lanka
- Participatory governance in planning: empirical evidence and challenges.
- E-governance, Good governance and its applicability
- Rational of planning and building regulations
- Procedures in Development permits and planning clearances
- Planning office procedure in practice.

MODU	JLE				LEVEL 2
PL24	02	Urban Housing	Urban Housing Studio (Electives)		
Credits	06	Lecture hours per semester	210	Assessmen t Method	CA-100%

- 1. To introduces recurrent and emerging debates about housing.
- 2. To compare housing policies and practices at local and global scale.
- 3. To analysis the role of housing within a society and within an urban fabric.
- 4. To propose housing strategies.

#### Learning outcomes

After completing the module students will be able to:

- 1. frame the housing problem by referring to literature and case studies
- 2. analyze the housing complexities
- 3. propose creative solutions to policy, finance and design in a demanding housing project

- Define the term 'housing' and conceptualize 'housing environment'
- Review precedent studies, housing policies and concepts
- Housing standards and finance
- Field surveys
- Data analysis and calculate housing deficit
- Formulating housing strategies
- Layout designs

MODU COD PL24	JLE )E 04	Land Use Planning Studio (Electives)			LEVEL 2 SEMESTER IV
Credits	06	Lecture hours per semester	210	Assessm ent Method	CA-100%

- 1. To learn methods of investigation of the use of land and spaces of a built environment for an in-depth understanding of the current issues
- 2. To have training in strategic interventions to resolve an identified problem situation in a given built environment.
- 3. To be inspired by innovative spatial planning and design strategies to realize the identified strategic actions to development built environments in desired directions.
- 4. To develop rationale thinking and effective communication of the strategies formulated.
- 5. To engage in teamwork and consider alternative responses.

# Learning Outcomes

After completing the module students will be able to:

- 1. analyze and comprehend the cause and effect relationships between the functions of a human settlement and the use of land and space in its built environment (Objective 1)
- frame problems relating to the use of space in a given situation, analyze them in an effective manner and envision strategic interventions (Objective 2)
- 3. formulate innovative planning and design responses organized into a comprehensive proposal and rationalize them (Objectives 3, 4 & 5)
- 4. effectively communicate the proposals through alternative media different modes of communication using different planning techniques and methods of simulation methods (Objective 4)

- Review of planning and design literature
- Studio project on a 'strategic design intervention' in a built environment affected by current issues related to the utility of space.
- The process of Problem Framing, Visioning, Strategy formulation and Rationalization.
- Methods of analysis and simulation

		Ecology, Landscape Planning and			LEVEL 2	
PL24	04	Design Stu	idio (Electives)		SEMESTER IV	
One dite	06	Lecture hours	010	Assessmen	CA 4000/	
Credits	00	per semester	210	t Method	CA-100%	
Learning	j objec	tives				
1. T	o learn	on the methods of in	vestigatio	n of the use of	land and spaces of	
а	built e	environment for an in	-depth un	derstanding of	the current issues	
re	elated t	o leisure and recreati	on			
2. T pi	<ol> <li>To have training in strategic interventions to resolve an identified problem situation in a given environment.</li> </ol>					
3. T	o be ii	nspired by innovative	e spatial p	lanning and d	lesign strategies to	

- 3. To be inspired by innovative spatial planning and design strategies to realize the identified strategic actions to development-built environments in desired directions.
- 4. To develop rational thinking and effective communication of the strategies formulated.
- 5. To engage in teamwork and consider alternative responses.

# Learning outcomes

After completing the module students will be able to:

- 1. analyze and comprehend the cause and effect relationships between the functions and use in its leisure and recreation area (Objective 1)
- frame problems relating to the use of space in a given situation, analyze them in an effective manner and envision strategic interventions (Objective 2)
- 3. formulate innovative planning and design responses organized into a comprehensive proposal and rationalize them (Objectives 3, 4 & 5)
- 4. effectively communicate the proposals through alternative media different modes of communication using different planning techniques and methods of simulation methods (Objective 4)

- Review of literature on theories and concepts of landscape planning, landscape ecology and conservation
- Concepts and exemplary case studies related to ecology and landscape planning
- Studio project on a 'strategic design intervention' in a built and natural environment affected by current issues related to the utility of space.
- The process of Problem Framing, Visioning, Strategy formulation and Rationalization.
- Methods of analysis and simulation

MODULE CODE PL2405		Development E	conomic	s	LEVEL 2 SEMESTER IV	
Credits 02		Lecture hours per semester	30	Assessmen t Method	CA- 20-40% WE- 60-80%	
Learning objectives						

### 1. To learn the main economic issues faced by developing countries.

- 2. To identify appropriate theoretical approaches and tools to analyze and understand Macroeconomic issues in developing countries.
- 3. To acquire knowledge on key economic sectorial policy issues in developing countries.
- 4. To learn economic development models and apply them in regional scale spatial development strategy formulation.

#### Learning outcomes

After completing the module students will be able to:

- 1. demonstrate a good level of understanding of key economic issues in developing countries (Objective 1)
- 2. analyze empirical evidence from developing countries and relate them to their economic policies (Objective 2 & 4)
- 3. develop the ability to discuss policy issues at national and regional scales (Objective 3)
- 4. have a greater understanding of the use of economic analysis in addressing important issues in developing countries (Objective 4)
- analyze and comprehend the cause and effect relationships of a given economic issue relating to its manifestations in space (Objective 2, 3 & 4)
- 6. formulate innovative planning and design responses organized into a comprehensive proposal and justify them (Objective 2, 3 & 4)

- Introduction to growth and development
- Major growth theories
- Calculations of development with indicators (quantitative and qualitative)
- Measurement of inequality
- Significance of structural transformation
- Economic policies and issues in Sri Lanka
- Poverty, globalization, and security issues in the developing world
- International trade and the importance of foreign aid

MODULE CODE PL2406		Environment Mod	eling & /	LEVEL 2 SEMESTER IV	
Credits	02	Lecture hours per semester	30	Assessmen t Method	CA-100%

- 1. To acquire knowledge on the environmental assessment process.
- 2. To model environmental impacts of projects, plans and programs.

# Learning outcomes

After completing the module students will be able to:

1. anticipate and predict the impacts of a proposed project or a plan as a part of an environmental assessment (Objectives 1 & 2)

# Outline syllabus

Modeling and assessment of the significance of impacts on bio-physical and socio-economic environment including.

- Environment Assessment Process
- Air quality modeling
- Noise and vibration modeling
- Soil modeling
- Water quality modeling
- Biodiversity modeling
- Land cover change modeling
- Environmental indexing

MODULE CODE PL2407		Social Justice ir	n Planning	LEVEL 2 SEMESTER IV	
Credits	02	Lecture hours per semester	30	Assessmen t Method	CA- 20-40% WE- 60-80%

- 1. To understand the concepts and principles of social justice and social equity in urban planning.
- 2. To illustrate "social inclusion" as against "social exclusion"
- 3. To demonstrate how human settlements are structured under mainstream economic forces and dominant social structures such as gender, race, class, and religious conviction.

#### Learning outcomes

After completing the module students will be able to:

- 1. Recognize the diversity and heterogeneity of society in their professional practice. (Objective 1)
- 2. Understand how human settlements have been shaped by socioeconomic conditions. (Objective 2)
- 3. Formulate strategies to address the issues of marginalized communities such as people who live in slums, informal vendors in the streets, indigenous communities, and urban migrants. (Objective 3)
- 4. form planning and building regulations to ensure equal opportunities and access for all including the poor, persons with disabilities and different preferences (Objective 1 & 2)

- Social justice in urban and regional planning
- Advocacy in planning and inclusive cities
- Planning for diversity in multicultural societies
- Gender negotiation in space
- Age and ageing implications in planning
- Micro-planning techniques for the socially disadvantaged in cities

MODULE CODE PL2408		Remote Sens	ing for Pl	LEVEL 2 SEMESTER IV	
Credits	02	Lecture hours per semester	60	Assessmen t Method	CA- 100%

- 1. To explain the principles of remote sensing
- 2. To investigate the roles and limitations of remote sensing platforms in different contexts
- 3. To employ manual and automated techniques to extract information from remotely sensed data

#### Learning outcomes

After completing the module students will be able to:

- 1. recognize and explain the fundamental principles of remote sensing (Objective 1)
- 2. identify the specific applications where the remote sensing tools can be employed (Objectives 2 & 3)
- 3. acquire skills in processing, interpreting and analyzing remotely sensed data (Objective 3)

- Introduction to remote sensing
- Digital image interpretation
- Introduction to multispectral & hyper spectral remote sensing
- Introduction to microwave and LIDAR remote sensing
- Thermal remote sensing and its applications
- Statistics for remote sensing data analysis
- Digital photogrammetry
- Remote sensing for disaster management & vegetation analysis (using LIDAR and RADAR image analysis techniques)
- Remote sensing for urban landscape analysis (Drone & LIDAR techniques)
- Accuracy of remote sensing techniques
- Urban Sensing

MODULE CODE PL2409		Advanced Quantit Researc	tative and th Method	LEVEL 2 SEMESTER IV	
Credits	02	Lecture hours per semester	30	Assessmen t Method	CA - 100%

- 1. To learn regression techniques, inferential tests and multivariate analysis techniques to address planning, policy or other research questions
- 2. To apply quantitative and qualitative methods for the analysis of a given context for planning, policy, and research.

# Learning Outcomes

After completing the module, the students will be able to:

- Recognize quantitative and qualitative techniques in decision-making processes by investigating relationships between variables, inferential tests and applying a range of core qualitative approaches. (Objective 1 & 2).
- 2. Practice relevant bivariate and multivariate quantitative and qualitative methods to address planning, policy, or other research questions (Objective 1 & 2).
- 3. Appraise appropriate quantitative and qualitative data analysis software and present the outcomes based on the APA style in writing reports (Objective 1 & 2).

- Time Series Analysis: Variation in time series, trend analysis, cyclical variation, seasonal variation, irregular variation, forecasting
- Correlation and Regression Analysis: correlation co-efficient, co-efficient of rank correlation, partial correlation and multiple correlation, simple Linear and nonlinear Regression, Multiple Regression Analysis
- Statistical Inference: Types of estimation; point, interval, statistical hypothesis, simple and composite tests of significance, null & alternative hypothesis, types of errors, level of significance, critical region; two tailed and one tailed test, large and small sample tests for mean and proportion
- Chi-Square Test and Analysis of Variance (ANOVA)
- Multivariate Analysis Techniques: Cluster Analysis, Factor Analysis.
- Methods of Qualitative data recording (Phenomenological, grounded theory)
- Methods of Qualitative data analysis and data interpretation: Content analysis, thematic analysis, discourse analysis, framework analysis, grounded theory analysis.
- Introduction to computer based quantitative and qualitative data analysis software (SPSS, NVIVO etc.)

MODULE CODE PL2410		Introduction to Planning a	Infrastrue nd Desigr	cture า	LEVEL 2 SEMESTER IV
Credits	02	Lecture hours per semester	30	Assessmen t Method	CA - 50% WE - 50%

- 1. To acquire knowledge on the theories and concepts-associated with the planning and designing of infrastructure systems.
- 2. To analyze the level of service of infrastructure in a given context.
- 3. To examine appropriate infrastructure solutions for a given context.

# Learning Outcomes

After completing the module students will be able to:

- 1. diagnose infrastructure-related problems at a given spatial scale (Objectives 1 & 2)
- 2. compare and contrast appropriate management solutions for physical and social infrastructure (Objectives 2 & 3)

- Introduction to Infrastructure Planning
- Infrastructure Assessment Methods
- Norms and Standards for Infrastructure
- Introduction to Infrastructure Systems (Drinking Water, Wastewater, Stormwater, Solid Waste)
- Sustainable Infrastructure Planning and Management Solutions

MODULE		Social Work (NGPA)			LEVEL 2
PL2411					SEMESTER IV
Credits	01	Lecture hours per semester	45	Assessmen t Method	CA-100%

- 1. To develop social consciousness and ability of team working
- 2. To demonstrate social responsibility and hands-on practice of problem solving in a given community

#### Learning outcomes

After completing the module students will be able to:

- identify the community needs of socially disadvantaged groups (objectives 1 & 2)
- 2. understand the social responsibility and contribute towards addressing the issues of a given area or a community (objectives 1 & 2)

- Introduction to variety of social Work
- Principles of social communication
- Techniques of understanding the attributes of a target community
- Logic of creativity in society
- Participatory patterns of social interaction

Level Three - Semester Five

**Course Modules** 

Synthesis Stage

MODULE CODE PL3501		Regiona	al Plannin	LEVEL 3 SEMESTER V	
Credits	02	Lecture hours per semester	30	Assessmen t Method	CA 20-40 % WA 60-80%

1. To understand concepts, theories, analysis techniques and statutory aspects in Regional Planning.

# Learning outcomes

After completing the module students will be able to:

- 1. Apply regional analysis techniques to elaborate the form and the functionality of a given regional context (objectives 1)
- 2. To carry out boundary delineation in a regional context using appropriate methodology (objectives 1)
- Formulate a strategic framework to address regional issues (objectives 1)

- A region in Regional Planning
- Spatial Planning in Regional context
- Theories, Concepts of Spatial organization / Structure of Region
- Regional Analysis Techniques
- Regionalization of Cities Delineation of a region (Criteria, Techniques...)
- Alternative Regional Planning approaches
- Regional Planning Process & Statutory Framework
- Regional growth and Sustainable regional development
- Spatial Policy and strategies for regional growth
- Issues in Regional Development
| MODU       | JLE   | Coastal Regiona                                 | l Planning              | g and Design                       | LEVEL 3           |  |
|------------|---|---|-------------------------|------------------------------------|-------------------|--|
| PL35       | 0E<br>02  | Studio  | Studio (Electives)      |                                    |                   |  |
| Credits    | 06  | Lecture hours<br>per semester                   | 210                     | Assessment<br>Method               | CA-100%           |  |
| Learning   | object  | ives  |                         |                                    |                   |  |
| 1. T       | o conc  | eptualize a "region" a                          | nd its appl             | lication for a coas                | tal area          |  |
| d<br>2 T   | evelopi<br>o frame  | ment<br>e problem situations r                  | elated to t             | he issues prevale                  | ent in a coastal  |  |
| re         | egion   |   |                         |                                    |                   |  |
| 3. T       | o analy   | ze a coastal region a                           | ind its con             | text in the form of                | systems,          |  |
| 4. T       | etwork:<br>o formi  | s, processes and patt<br>ulate spatial planning | erns<br>and desig       | n policies for a de                | evelopment of a   |  |
| C          | oastal i  | regional in Sri Lanka.                          | 5                       |                                    |                   |  |
|            |   |   |                         |                                    |                   |  |
| Learning   | outcor  | nes   |                         |                                    |                   |  |
| After con  | npleting  | g the module students                           | s will be at            | ole to:                            |                   |  |
| 1. de      | emons   | trate an understandin                           | g of the th             | eories and conce                   | pts related to    |  |
| re<br>D re | gional  | planning (Objective                             | I).<br>the enetic       | l organization of a                | a constal region  |  |
| 2. 16      | Dbjectiv  | ves 2 & 3).                                     | the spatial             | r organization of a                | a coastal region  |  |
| 3. A       | ddress  | a problem situation i                           | n a region              | al context and for                 | mulate strategic  |  |
| p          | lanning   | and design solutions                            | s (Objectiv             | e 4).                              |                   |  |
| Outline    | ulahua  |   |                         |                                    |                   |  |
| Outline s  | ynabus  | ,   |                         |                                    |                   |  |
| • R        | eview<br>oastal   | of Regional Planning                            | and Desig               | in Literature<br>stal ecosystems a | and               |  |
| C          | <ul> <li>conservation, coastal communities, coastal tourism, coastal</li> </ul>                         |   |                         |                                    |                   |  |
| in         | infrastructure  |   |                         |                                    |                   |  |
| • IV       | <ul> <li>Methods and techniques of spatial analysis and simulation at the<br/>regional level</li> </ul> |   |                         |                                    |                   |  |
| • S<br>in  | tudio e<br>a sele   | xercises in recording cted coastal regional     | , analysis a<br>setting | and strategic desi                 | ign interventions |  |
|            |   |   |                         |                                    |                   |  |

MODU COD PL35	ILE E 03	Eco-sensitive Re Design stu	egional Pl ıdio (Elec	anning and tives)	LEVEL 3 SEMESTER V
Credits	06	Lecture hours per semester	210	Assessment Method	CA-100%

- 1. To conceptualize the concept of a "region" and the implications of developing eco-sensitive regions.
- 2. To diagnose complex problem situations at a given eco-sensitive region.
- 3. To analyze a region and its context in the forms of systems, networks, processes and patterns.
- 4. To formulate a desired spatial planning strategy and policies at the regional level.

### Learning outcomes

After completing the module students will be able to:

- 1. Demonstrate an understanding of eco-sensitive planning theories and concepts (Objective 1)
- 2. Record, analyze and interpret the spatial organization of a region (Objectives 2 & 3)
- 3. Address a problem situation at a regional context and formulate strategic design solutions (Objective 4)

## Outline syllabus

After completing the module students will be able to:

- Review of Regional Framework Planning and Design Literature
- Eco-sensitive planning concepts and exemplary case studies
- Methods and techniques of spatial analysis and simulation
- Studio exercises in recording, analysis and strategic design interventions in a selected regional setting

MODU COD PL35	JLE DE 04	Agro Regional (E	Planning Studio lectives)	LEVEL 3 SEMESTER V	
Credits	06	Lecture hours per semester	210	Assessment Method	CA-100%

- 1. To conceptualize the concept of a "region" and the implications of developing agro regions.
- 2. To diagnose complex problem situations in a given agro region.
- 3. To analyze a region and its context in the forms of systems, networks, processes and patterns.
- 4. To formulate a desired spatial planning strategy and policies at the regional level.

#### Learning outcomes

After completing the module students will be able to:

- 1. Demonstrate an understanding of region planning theories and concepts (Objective 1)
- 2. Record, analyze and interpret the spatial organization of a region (Objectives 2 & 3)
- 3. Address a problem situation at a regional context and formulate strategic design solutions (Objective 4)

## Outline syllabus

After completing the module students will be able to:

- Review of Regional Framework Planning and Design Literature
- Concepts and exemplary case studies related to agro region planning
- Methods and techniques of spatial analysis and simulation
- Studio exercises in recording, analysis and strategic design interventions in a selected regional setting

MODULE CODE PL3505		Urban E	Urban Economics				
1 200	00						
Credits	02	Lecture hours per semester	30	Assessmen t Method	CA 20-40 % WA 60-80%		

- 1. To incorporate economics in analyzing the systems and functions of an urban economy
- 2. To examine the economic dimension of urban issues in the contemporary city

## Learning outcomes

After completing the module students will be able to:

- 1. Identify the drivers and dynamics of an urban economy in the context of urbanization (Objective 1).
- analyze the problems and prospects prevailing in urban economies (Objective 2)
- 3. propose appropriate planning interventions to enhance and manage the economy of a city (Objectives 1 & 2)

- Market forces and city: why cities exist and where do cities develop?
- Theories and trends of urbanization; Urbanization and Urban Growth in Sri Lanka
- Urban economic growth: role of trade, productivity, capital, labor market
- Growth of contemporary city: Suburbanization and Sprawling
- Managing urban growth: planning interventions and its implications
- Urban informality and the city economy
- Urban Transportation economics

MODU COD PL35	JLE PE 06	Eco Sensitive F	Planning C	Concepts	LEVEL 3 SEMESTER V
Credits	02	Lecture hours per semester	30	Assessmen t Method	CA 100 %

1. To acquire knowledge and skills on eco-sensitive spatial planning applications and practices.

#### Learning outcomes

After completing the module students will be able to:

- 1. explain the ecological discourses and innovative practices (Objective 1)
- 2. design sustainable spatial planning solutions (Objective 1)

- Environmental sustainability discourses in spatial planning
- Eco-sensitive planning and design approaches for cities and regions
- Exemplary case studies of eco-sensitive planning practices

MODU COD PL35	JLE DE 07	Political Eco	onomy of \$	LEVEL 3 SEMESTER V	
Credits	02	Lecture hours per semester	30	Assessmen t Method	CA 20-40 % WA 60-80%

- 1. To understand the basic concepts and principles of political economy and its relevance to spatial planning.
- 2. To comprehend space, its dimensions and conflicts from a political economy perspective.
- 3. To demonstrate how different political economic systems and structures shape cities, their structures and functions.

### Learning outcomes

After completing the module students will be able to:

- 1. Appreciate the significance of different political ideologies and their corresponding economic systems (Objective 1)
- 2. Analyze how communities are located in the city, influenced by different political economic structures (Objective 2)
- 3. Understand socio-economic conflicts in space from a political economy perspective and develop appropriate conflict management strategies (Objective 2).
- 4. Understand the planner's role as a 'mediator' between the people and the market in a neoliberal governing structure (Objective 2 & 3)

- Political economy, theories of the state and economic crisis
- Evolutionary process of political economy in urban planning
- Dimensions of space and place making in space
- Social conflicts in space and conflict management strategies under different political economic systems.
- Marxist and capitalist principles related to development planning and their implications on urban space
- Economic surplus, state intervention and social welfare
- Structure of cities under different political economic systems

MODU COD PL35	JLE )E 08	Advanced GIS a F	nd Remote Planning	e Sensing for	LEVEL 3 SEMESTER V
Credits	01	Lecture hours per semester	45	Assessment Method	CA-100%

- 1. To apply Advanced GIS and Remote Sensing tools to evaluate realworld issues
- 2. To recognize the principles of Spatial Data Infrastructure
- 3. To develop programs and scripts to automate geospatial tasks

### Learning outcomes

After completing the module students will be able to:

- 1. develop advanced geospatial models to evaluate real-world issues (Objective 1)
- 2. identify specific applications where Spatial Data Infrastructure can be employed (Objective 2)
- 3. design and implement independent Web GIS application (Objectives 1, 2 and 3)

- Advanced 3D & 4D GIS data analysis
- Geocoding and its applications
- Big data and cloud data analysis
- Advanced image analysis and Computer vision
- Web GIS and its applications
- Open data standards and spatial data infrastructure
- Analysis of real-world issues with remote sensing data (floods, landslides, soil erosion, sedimentation, urban heat, deforestation, etc.)

MODU COD PL35	JLE )E 09	Spatial Modelii	patial Modeling and Simulation		
Credits	02	Lecture hours per semester	60	Assessmen t Method	CA-100%

- 1. To acquire a comprehensive knowledge on the theories, concepts and precepts of spatial modeling and simulation.
- 2. To acquire skills to apply appropriate modeling and simulation tools in decision-making.
- 3. To develop an ability to analyse a given problem situation with the support of modeling and simulation.

## Learning Outcomes

After completing the module students will be able to:

- 1. develop a spatial model/framework to simulate a given spatial process (Objectives 1 & 2)
- 2. interpret a given problem situation with the support of modeling and simulation (Objective 3)

- Introduction to spatial modeling and simulation methodologies
- Principles of model-building
- Rank Size Rule, Power Law, Tobler's Law
- Network Centrality
- Fractal Geometry
- Cellular Automata
- Gravity and Spatial Interaction Models
- Land Use and Accessibility Interaction Models
- Land Use Change Modeling
- Agent-Based Modeling
- Modeling Urban Density, Urban Sprawl, Urban Compactness
- Modeling Urban Morphology

MODU COD PL35	JLE )E 10	Regional Infrasti De	tructure Planning and esigning		LEVEL 3 SEMESTER V
Credits	03	Lecture hours per semester	45	Assessment Method	CA 100 %

- 1. To synthesis the role of infrastructure in the regional growth and development.
- 2. To acquire skills to plan and design infrastructure at regional scale.

## Learning Outcomes

After completing the module students will be able to:

- 1. explain the role of regional infrastructure systems in regional growth and development (Objective 1)
- 2. plan and design regional infrastructure systems as the catalyst of the sustainable development of a region (Objective 2)

- Introduction to regional infrastructure
- Plan and design of integrated infrastructure systems
- Plan and design road & railway infrastructure networks
- Plan and design the logistics corridors
- Plan and design the seaport and airport
- Plan and design regional infrastructure projects in energy, communication and irrigation sectors.

MODU COD PL35	JLE DE 11	Planning Ethics		LEVEL 3 SEMESTER V	
Credits	02	Lecture hours per semester	30	Assessmen t Method	CA- 100 %

- 1. To understand professional ethics in planning
- 2. To understand general work ethics, interpersonal communication skills and ethics of responsibility

### Learning Outcome

After completing the module students will be able to:

- 1. Aware of proper ethical practice in planning (Objective 1).
- 2. Develop proper work ethics and interpersonal communication skills (Objective 1 & 2)

- Ethical issues in urban, regional and environmental planning
- Codes of behavior in professional planning practice
- Philosophical perspectives on ethical issues
- Planners as experts in planning appeals

Level Three - Semester Six

**Course Modules** 

# Synthesis Stage

MODULE				LEVEL 3	
PL36	01	Cities and	Urban Fo	rms	SEMESTER VI
Credits	02	Lecture hours per semester	30	Assessmen t Method	CA 20-40 % WA 60-80%

- 1. To develop a thorough understanding on contemporary issues related to Cities, their Environments, their Users and Planning
- 2. To study different urban forms and their compositions at different scales
- 3. To analyze urban spaces, their context and issues related to their form

### Learning outcomes

After completing the module students will be able to:

- 1. to actively engage in contemporary planning discourse on cities and regions (Objective 1)
- to demonstrate a sound understanding on contemporary city environments and their issues from multiple perspectives (Objectives 1, 2 & 3)
- 3. interpret urban areas and their constituents through theories of urban form (Objectives 2 & 3)

- Theories of Urban Form and Spatial Organization
- Urban Morphology and Complexity
- Contemporary Urban Issues and their implications on Planning
- Methods and Techniques of simulation of urban space
- Theoretical Interpretation of a Micro Scale Urban Situation

MODU	JLE	Coastal City Pla	Coastal City Planning and Design		
COD	E	Si	Studio		
PL36	02	(Ele	(Electives)		
Credits	07	Lecture hours per semester	255	Assessmen t Method	CA-100%

- 1. To study and discuss contemporary issues in coastal areas as reflected in urban planning and urban design literature.
- 2. To have a training in strategic design approach towards addressing issues in a coastal urban area.
- 3. To illustrate the urban planning and design process and its application within the statutory framework.
- 4. To formulate strategic action projects for the development of a coastal urban area.
- 5. To develop versatility in the application of methods and techniques of urban spatial analysis and synthesis

#### Learning outcomes

After completing the module students will be able to:

- 1. demonstrate a wider awareness in contemporary urban design discourse related to coastal urbanism. (Objective 1)
- 2. approach a given problem situation in a coastal urban area through a design orientation. (Objective 2)
- 3. acquire a comprehensive understanding on statutory framework and institutional setting for the preparation of a plan for a coastal urban area (Objective 3 & 4).
- 4. demonstrate skills in analysis and synthesizing space at the urban scale (Objective 5).

- Discussions on Urban Design theories & concepts
- Coastal development Policies and statutes
- Coastal urbanism
- Exemplary case studies on coastal urban design and development
- Studio exercises of conceptualizing, analysis and strategic design interventions in a selected local setting.

MODU COD PL36	JLE )E 03	Heritage area P Studio	lanning a (Electives	nd Design :)	LEVEL 3 SEMESTER VI
Credits	07	Lecture hours per semester	255	Assessmen t Method	CA-100%

- 1. To develop a wider awareness on urban planning and design through the comprehension of theories and concepts relating to heritage, conservation and preservation.
- 2. To be trained in alternative planning and design approaches towards addressing issues in an urban area with significant heritage values.
- 3. To be able to illustrate the planning and design process and its application within the statutory framework, with specific focus on heritage of an urban area.
- 4. To develop skills in formulating strategies and action projects for the development of an urban area with heritage values.
- 5. To be trained in using methods and techniques of urban spatial analysis and synthesis

#### Learning outcomes

After completing the module students will be able to:

- 1. demonstrate a wider awareness on contemporary urban planning and design discourse. (Objective 1)
- 2. approach a given problem situation in an urban area with significant heritage values through a design orientation. (Objective 2)
- 3. acquire a comprehensive understanding on the statutory framework and institutional setting of planning and design of urban heritage areas (Objective 3 & 4).
- 4. demonstrate skills in analysis and synthesizing space at the urban scale (Objective 5).

- Discussions on Urban Design theories & concepts relating to heritage, conservation and preservation
- Urban heritage area development Policies and statutes
- Cultural Landscapes/ UNESCO World Heritage Sites
- Exemplary case studies on urban heritage area design and development
- Studio exercises of conceptualizing, analysis and strategic design interventions in a selected local setting.

MODULE Transit City Planning and Design Studio		LEVEL 3			
PL36	04	(Ele	ctives)	SEMESTER VI	
Credits	07	Lecture hours per semester	255	Assessmen t Method	CA-100%

- 1. To develop a wider awareness on transit-oriented development discourse through investigations of theories and concepts.
- 2. To be trained in design approach towards addressing issues in a transit hub/ transport corridor.
- 3. To illustrate the urban planning and design process and its application within the statutory framework.
- 4. To be trained in using methods and techniques of urban spatial analysis, simulation and synthesis.
- 5. To analyse, simulate and synthesize space at the urban scale.

### Learning outcomes

After completing the module students will be able to:

- 1. demonstrate a wider awareness in contemporary transit-oriented development discourse (Objective 1)
- acquire a comprehensive understanding of the statutory framework and institutional setting of preparing plan for a transit city/ transport corridor (Objectives 3)
- 3. approach a given problem situation in a transit city/ transport corridor through a design orientation (Objective 2)
- 4. formulate strategic action projects for the development of a transit city (Objectives 3, 4 & 5)

- Discussions on urban design theories & concepts
- Policies, statutes and guidelines
- Exemplary case studies on transit city/ transport corridor design and development
- Studio exercises of conceptualizing, analysis, simulation and strategic design interventions in a selected urban setting.

MODU COD	ODULE Real Estate Development			LEVEL 3	
PL36	05				SEMESTER VI
Credits	02	Lecture hours per semester	30	Assessment Method	CA 20-40 % WA 60-80%

- 1. To explain the economic principles underlying investment decisionmaking
- 2. To apply techniques and methodologies underpinning investment appraisal and valuation
- 3. To appraise alternative revenue enhancement methods for municipal assets with valuation and assessment tax methods

### Learning Outcomes

After completing the module students will be able to:

- 1. value property from the perspectives of owners and occupiers (Objective 1 & 2)
- 2. appraise real estate investment decisions (Objective 2)
- 3. select the best land for a development by comparing alternative lands & considering the potentials and merits of lands (Objective 3)

- Role of real estate in national development
- Real estate development process
- Real property market and market analysis
- Time value of money
- Basic property valuation principles & methods of valuation
- Valuation and taxing in Sri Lanka: procedures, challenges and way forward
- Property laws

MODU COD PL36	JLE )E 06	Planning for ( (Ele	Climate Re ectives)	esilience	LEVEL 3 SEMESTER VI
Credits	01	Lecture hours per semester	45	Assessment Method	CA -100 %

- 1. To acquire knowledge on the risk and resilience of human settlements.
- 2. To develop skills on disaster response plan-making at a given regional context.

#### Learning outcomes

After completing the module students will be able to:

- 1. assess the risk and the resilience of a given disaster-prone area (Objective 1)
- 2. formulate a spatial strategy for making resilient human settlements (Objective 2)

- Phenomena and processes of natural disasters
- Hazard, vulnerability, risk and resilience to disasters
- Climate change
- Frameworks of risk and resilience assessment of human settlements
- Anthropology of disasters
- Spatial planning approaches for resilience-building

MODU COD PL36	JLE )E 07	Participato	ory Pla	nning	LEVEL 3 SEMESTER VI
Credits	02	Lecture hours per semester	60	Assessment Method	CA-100%

- 1. To explore relationships between participatory planning and democratic governance.
- 2. To develop a critical understanding of the strengths and weaknesses of different concepts of, and approaches to, public participation.
- 3. To demonstrate workshops and different techniques to enhance public participation.
- 4. To understand the regulatory background of public participation.

## Learning outcomes

After completing the module students will be able to:

- 1. Reflect on "what is participation for?" and "what is 'good' participation?" (objectives 1 & 2)
- 2. Be able to develop knowledge of different approaches and techniques for public participation (objectives 1 & 2)
- 3. Be able to design instruments for public participation and conduct a workshop on participatory planning (objectives 3)
- 4. Be able to formulate a report on public comments & views of a draft plan (objective 4).

- The theory of democracy and public participation concepts
- What participation is and why it matters: participation in contemporary context
- Rethinking participation in the context of planning
- Participatory planning approaches and techniques
- Practices of participation in the developed and developing world
- Statutory requirements for public views on a draft plan

MODU COD PL36	JLE E 08	Urban Inform	atics (E	lectives)	LEVEL 3 SEMESTER VI
Credits	01	Lecture hours per semester	45	Assessment Method	CA-100%

- 1. To design effective systems to communicate spatial information in urban planning and management.
- 2. To develop new urban planning and management tools applying urban informatics

## Learning Outcomes

After completing the module students will be able to:

- 1. demonstrate the application of urban informatics in urban planning and management (objectives 1 & 2)
- 2. Develop new computer-based applications to support urban planning and management. (objectives 1 & 2)

- Introduction to the Urban Informatics
- Open Data and Standards
- Human and sensor inputs data collection
- Data as a service
- Data dissemination and visualization
- Web processing services
- Internet of Things (IoT)
- Location Based Services (LBS)
- Citizen Science

MODU	JLE				LEVEL 3
PL36	09	Project Formula	ation and	d Appraisal	SEMESTER VI
Credits	02	Lecture hours per semester	30	Assessment Method	CA 20-40 % WA 60-80%

- 1. To explain the key concepts of project formulation and appraisal.
- 2. To illustrate the methods pertaining to project formulation & appraisal
- 3. To apply different development appraisal methods and evaluate alternative development proposals.

## Learning outcomes

After completing the module students will be able to:

- 1. Demonstrate knowledge of the terms and concepts associated with project formulation and appraisal (objectives 1 & 2)
- 2. Appraise potential development proposals and propose an optimum development strategy (objectives 2 & 3)
- Prepare project feasibility reports in conformity with physical, economic, environmental and social aspects of a proposed development (objectives 3)

- Project, project formulation, appraisal and project attributes
- Project Life Cycle
- Project team and stakeholders
- Project appraisal methods
- Project Planning and Scheduling
- Cash flow statements and Project feasibility Report
- Method and techniques for Project Risk Analysis
- Development appraisal issues

MODU COD PL36	MODULECODEUrban Infrastructure Planning andPL3610Designing				LEVEL 3 SEMESTER VI
Credits	03	Lecture hours per semester	45	Assessment Method	CA 100%

- 1. To learn on the methods and techniques appropriate to address urban infrastructure design related issues in a given urban area
- 2. To develop skills for formulation and implementation of urban infrastructure proposals

## Learning Outcomes

After completing the module students will be able to:

- 1. interpret problem situations in urban areas relating to urban infrastructure (objectives 1)
- 2. design infrastructure solutions for urban problems (objectives 1 & 2)

- Fundamentals related to urban infrastructure
- Planning and design urban transport infrastructure systems
- Planning and design mass rapid transit systems
- Planning and design urban sanitation systems
- Planning and design urban amenities
- Planning and design SMART infrastructure

Level Four - Semester Seven

**Course Modules** 

# **Product Stage**

MODU COD PL47	JLE )E 01	Researc	LEVEL 4 SEMESTER VII		
Credits	02	Lecture hours per semester	30	Assessm ent Method	CA 100%

- 1. To obtain an understanding on 'research'
- 2. To acquire knowledge to formulate objective and hypotheses for research
- 3. To develop appropriate research methods in undertaking research

### Learning Outcomes

After completing the module students will be able to:

- 1. explain the need and use of conduction research (objectives 1 & 2)
- 2. develop a comprehensive research proposal (objectives 2, 3 & 4)

- Definition of research
- Framing research problem and developing the hypothesis, objectives
- Literature survey
- Research designing
- Quantitative and qualitative data collection and analysis
- Interpretation of results
- Research writing methods
- Research ethics

MODULE CODE PL <b>4702</b>		Individually Supervised Research Project (ISRP)			LEVEL 4 SEMESTER VII
Credits	11	Lecture hours per semester	450	Assess ment Method	CA-100%

- 1. To develop knowledge on the basics of research methodology.
- 2. To demonstrate the techniques of referencing source material.
- 3. To be trained on the skills required for conducting a research and writing a research report.

### Learning outcomes

After completing the module students will be able to:

- 1. demonstrate a familiarity with relevant literature (Objectives 1 & 2)
- conduct a research study in a logical and coherent form (Objectives 1, 2 & 3)

## **Outline Syllabus**

The Individually Supervised Research Study is to enable the Student to prepare, in written form, a research study in an area relevant to Town & Country Planning. It should consist of above 5000 words but may not exceed 7500 words. It should reflect the student's ability to complete a research and analysis exercise, and to write it up in a coherent form. Further, it should be adequate in its methodology. The student will be assigned a Principal supervisor for guidance during the research study.

MODULE CODE PI 4703		Academic	Academic Writing Skills		
	00				
Credits	02	Lecture hours per semester	30	Assessmen t Method	CA -100%

- 1. To develop academic writing skills focusing on quantitative and qualitative research
- 2. To develop skills in writing research publications
- 3. To demonstrate methods to avoid plagiarism in academic reports/ publications

#### Learning outcomes

After completing the module students will be able to:

- 1. Write academic reports/ publications effectively using appropriate tone and language (objectives 1 & 2).
- Present quantitative and qualitative data in a logical manner and articulate claims/ propositions leading to main research arguments (objectives 1).
- 3. Thorough review of previous theoretical and empirical work and provoke academic debates in academic reports/ publications (objectives 2 & 3).

- Quoting, paraphrasing and rephrasing
- Logical writing
- Data presentation and interpretation
- Advanced grammar and use of punctuations
- Summarizing
- Writing research publications

MODU	JLE				LEVEL 4
PL47	04	Internship (NGPA)			SEMESTER VII
Credits	04	Lecture hours per semester	4 Months	Assessmen t Method	CA- 100%

- 1. To gain an exposure to the working environments in planning related agencies
- 2. To participate in practical applications of the knowledge gained in planning-related work

## Learning Outcomes

After completing the module students will be able to:

- 1. Apply the knowledge with other professionals involved in the industry (objectives 1 & 2)
- 2. Appraise office procedures, work environments and work ethics in planning and related agencies (objectives 1 & 2)
- Involve in both office and field work to understand stakeholder perceptions and get exposed to real ground problem solving activities (objective 2)
- 4. Improve individual decision-making skills and professional interpersonal skills (objective 2)

- Preliminary data collection and analysis exercises, using different techniques and computer aided software.
- Plan/ Project Planning and Designing
- Involve with planning related preliminary studies such as EIA, SEA, SIA, PFS, FS, etc.
- Plan Implementation
- Monitoring and Evaluation process
- Project Management and Financial Assessment related activities in planning
- Legal Procedures of the Plan Preparation and Implementation
- Office Procedures and Protocols
- Maintaining daily diary and record of the tasks performed in an objective manner

Level Four - Semester Eight

**Course Modules** 

# **Product Stage**

MODU	JLE )E				LEVEL 4					
PL48	01	Urban	Urban Design							
Credits	02	Lecture hours per semester	30	Assessmen t Method	CA 20-40 % WA 60-80%					
Learnin	Learning objectives									
1. To ui	<ol> <li>To learn on the methods and techniques appropriate to address urban design related issues in a given urban area</li> </ol>									
2. To	o have	e a training in critiqu	ue and	methods of e	evaluating urban					
3. To in	o deve volved roposa	lop skills for the man in the formulation is	ageme n and	nt of inputs fro implementation	om different disciplines on of urban design					
Learnin	g outo	comes								
After co	mpletir	ng the module studen	ts will b	be able to:						
1. in re	<ol> <li>interpret problem situations in urban areas relating to design theories, regulations, guidelines and standards (objective 1)</li> </ol>									
2. as	2. assess the suitability of an urban design proposal relating to the physical social and economic aspects of the situation (objective 2)									
3. id	<ol> <li>identify and organize different inputs required for the formulation of an urban design proposal for a selected site</li> </ol>									
Outline syllabus										
The discipline of urban design and its current involvement in development process										
• U di	Urban design functions, contemporary urbanism and urban design discourse.									
• S	<ul> <li>Study of the trends and patterns of urban development and different</li> </ul>									
• C	<ul><li>disciplines involved in the process.</li><li>Concepts and techniques involved in the management of the design</li></ul>									
pi	process and decision making									

MODULE CODE PL4802		Individually Super and Design S	LEVEL 4 SEMESTER VIII		
Credits	08	Lecture hours	315	Assessmen t Method	CA-100%

- 1. To acquire skills in the application of different tools and techniques in planning at locality and site level.
- 2. To develop knowledge in devising strategic planning and design solutions at the site level
- 3. To acquire knowledge in theories, concepts, formalities and procedures in planning a locality for development
- 4. To understand alternative aspects of development that need to be considered and different forces which need to be addressed in a development project

### Learning outcomes

After completing the module students will be able to:

- Demonstrate a comprehensive understanding of the processes and procedures involved in planning a locality for a development (Objectives 1 & 2)
- The application of skills acquired in strategizing, designing, action planning and defending a planning an urban design/site development project (Objectives 1, 2, 3 & 4)

## Outline syllabus

A Design project that involves a strong Urban Design/ Regional or local Planning/ Urban Management / Infrastructure / etc, component that involves the exploration of a particular spatial entity (city, locality, region, etc), simulation of it, identify the problems and root causes of the problems, development of a proposal to address such problems and their roots in an innovative design approach.

It is required to present the design solutions through any mode of communication, including a project report. The presentation and the report shall reflect the student's capacity to comprehend, interpret, innovate, justify and effectively communicate the project. The student will be assigned a Principal supervisor and a tutor for the guidance during the project.

MODULE CODE PL4803		Project Ma	LEVEL 4 SEMESTER VIII		
Credits	02	Lecture hours per semester	30	Assess ment Method	CA 20-40 % WA 60-80%

- 1. To explain the terms and concepts associated with project management concepts.
- 2. To demonstrate the ability to use project management knowledge in implementing physical development projects.

## Learning outcomes

After completing the module students will be able to:

 Apply project management processes, tools and techniques to solve project planning and management issues in urban & rural areas (Objectives 1 and 2)

- Concepts of urban management and project management
- Project management process
- Overview of issues involved in managing urban projects.
- Introduction to Procurement
- Arbitration and Negotiation
- Marketing and Branding

MODULE CODE PL4804		Environment Management System (Electives)			LEVEL 4 SEMESTER VIII
Credits	01	Lecture hours per semester	45	Assess ment Method	CA-100%

- 1. To acquire knowledge and skills on planning and implementation of Environmental Management Systems (EMS) in local and site levels.
- To design environmental management strategies that reduce environmental impacts, optimize resource use, promote waste reduction and recycling, prevent pollution, and involve public stakeholders.

#### Learning outcomes

After completing the module students will be able to:

- 1. apply EMS in cities and project sites (Objective 1)
- 2. formulate effective environmental management strategies (Objective 2)

- Basic Principles of Environmental Management Systems
- Environmental Management Practices (EMPs)
- Life Cycle Assessment (LCA)
- Ecological foot print assessment
- ISO Standards for sustainable human settlements and smart cities
- Environmental Assessment standards and legislation (EIA/SEA)

MODULE CODE PL4805		Urban Regeneratio	Urban Regeneration and Conservation (Electives)							
		(Elec								
Credits	01	Lecture hours per semester	45	Assessment Method	CA-100%					
Learning	objec	tives								
					l					
re	1. To develop an understanding of the theories and concepts of urban regeneration and conservation									
2. To	2. To understand the backward and forward linkages of urban design involving urban spaces and its relationships to property development									
3. T	o illust	trate the concept of	obsole	escence and re	egeneration of prime					
lo	cations	s in cities and towns to	create	better living envi	ronments					
4. To	o appl	y tools of regenerati	on and	d conservation d	for revitalizing urban					
	enters i	n the new global econ	oning	as the means	of onbancing city					
5. TO	ompetit	iveness through strate	gic inte	rventions	or enhancing city					
Learning	Outco	omes								
After com	pleting	the module students v	vill be a	able to:						
1 C	oncent	ualize urban regener	ation a	and conservation	n as a technique to					
di	agnos	e and review problem:	s assoc	ciated with urban	sites (objectives 1 &					
2										
2. E	, xpress	wide knowledge o	n con	temporary urba	n regeneration and					
CC	onserva	ation ideas and practic	es (obje	ectives 1 & 2)						
3. A	nalyze	the need of conserva	tion an	id/ or regeneration	on for a selected site					
fro	om mu	Itidisciplinary perspecti	ves							
4. Fe	ormula	te place making inte	erventic	ons to utilize th	te conservation and					
re	genera	ation potentials of spec	ific urba	an localities (obje	ectives 3 & 4)					
5. E	valuate	the proposed interve	entions	by using qualita	ative and quantitative					
m	ethods	of regeneration and c	onserva	ation (objective 5	))					
Outline S	Syllabu	S								
• Ui	rban cor	nservation and regeneratio	n theorie	es and approaches						
• Au	uthentici	ty and sense of place in pl	anning c	of conservation sites	and obsolescence sites					
• R	egenera	tion and conservation prac	ctices in	Sri Lankan context a	and legal background					
• So	ocial and	d Economic perspectives v	vith case	study reviews						
• R	ole of Im	plementation agencies in	Urban R	egeneration and co	nservation					
• Pi	os and	cons in the post implemen	tation of	regeneration and co	onservation projects					
• iù th	entincat eoretica	lon of Case Studies for rec	generatio t	on and conservation	In the urban context with					
• St	akehold	er perspective on the read	- eneration	and conservation r	projects					
• In	portanc	e of urban design framewo	ork and i	mplementation arra	ngement					
• Di	fferent i	methods of project evalua	ation for	regeneration and c	conservation projects and					
ro	le of priv	vate sector in financing								

MODULE CODE PL4806		Computer Programming and Artificial Intelligence (Electives)			LEVEL 4 SEMESTER VIII
Credits	01	Lecture hours per semester	45	Assessm ent Method	CA-100%

- 1. To acquire a fundamental knowledge on programming and artificial intelligence.
- 2. To be trained on applying AI and GIS in developing new urban planning tools.

## Learning Outcomes

After completing the module students will be able to:

- 1. customize the GIS applications to meet the spatial planning and management (Objectives 1 & 2)
- 2. develop new computer-based applications to support the urban planning and management decision-making process (Objectives 1 & 2)

- Basic programming
- Vector and Raster programming
- System development (Open-source plugin development)
- Machine Learning
- Big Data Analysis and Data Mining
- Intelligent Solutions for Spatial Planning

MODULE CODE PL4807		Public Proj	Public Project Financing		
Credits	02	Lecture hours per semester	30	Assessmen t Method	CA 20-40 % WA 60-80%

- 1. To explain the principles of annual budgeting at local, provincial, and national government.
- 2. To illustrate alternative revenue sources to implement physical plans within the local governance framework
- 3. To discuss management aspects in relation to public finance such as management of public expenditure and revenue

### Learning outcomes

After completing the module students will be able to:

- 1. Compose mandated sources of revenue generation (Objective 1 & 2)
- 2. Reconcile the programs & projects in the physical development plan with the budgetary process (Objectives 1,2 & 3)

- Principles of annual budgeting at Local, Provincial and National Levels of government
- Statutes governing local and provincial power over finance
- Devolution of financial powers
- Local authority accounting, budgeting and financial reporting
- Local authority revenue and expenditure
- Issues and challenges in local authority budget management
- Participatory budgeting
- Possibility and process of financing the urban planning projects

# SECTION V

## **BY-LAW**

for the Award of the Degree of Bachelor of Science Honours in Town & Country Planning

#### UNIVERSITY OF MORATUWA, SRI LANKA BY-LAW FOR THE AWARD OF THE BACHELOR OF SCIENCE HONOURS IN TOWN & COUNTRY PLANNING

By-Law made by the Council of the University of Moratuwa under section 135 of the Universities Act No: 16 of 1978

#### **BY-LAW**

This By-Law may be cited as the Bachelor of Science Honours Degree in Town & Country Planning By-Law No: 27 of 2001.

#### 1.0 Award of Degree

- 1.1 The Bachelor of Science Honours Degree in Town and Country Planning, hereinafter referred to as the Degree, may be awarded by the University of Moratuwa, Sri Lanka, hereinafter referred to as the University, to a Student who:
  - (a) has fulfilled all the eligibility requirements for admission to the course as set out in Section 2.0
  - (b) has been admitted to the University as a student under the Universities Act No: 16 of 1978;
  - (c) has been a duly registered student of the University for the period prescribed for the course of study leading to the degree and whose registration continues to be in force up to the time of completion of requirements laid down in the Performance Criteria
  - (d) has paid such fees as prescribed by the University and any other dues payable to the University;
  - (e) has completed to the satisfaction of the Senate of the University hereinafter referred to as the Senate, the prescribed course requirements leading to the Degree as set out in Section 4.0 and Section 6.0 and the Performance Criteria.
  - (f) has fulfilled all other conditions and requirements prescribed by this By-Law and Rules and Regulations of the University;
- 1.2 The Degree shall be conferred on a student qualified as in Section 1.1, in accordance with the Performance Criteria as laid down by the Senate.

#### 2.0 Eligibility for Registration

- 2.1 An Applicant may be considered for Admission to the University to follow the Degree Course, if he/she:
  - 2.1.1 has attained the prescribed minimum standards at the G.C.E. Ordinary Level and Advanced Level Examination in a manner as determined by the University Grants Commission of Sri Lanka, and approved by the Senate; and
2.1.2 has attained other prescribed minimum standards at such examinations as determined by the Senate.

# 3.0 Registration for the Course

- 3.1. A candidate selected for admission to the University for the Course of Study as laid out in Section 2.0 may register to follow its First Semester in the manner prescribed by the Senate.
- 3.2. Eligibility for registration for the subsequent Semesters of the Degree Course shall be as determined by the Senate.
- 3.3. Provisional registration may be permitted by the Senate under exceptional circumstances.
- 3.4. The prescribed fees payable for registration, tuition and examinations shall be as determined by the University Council.
- 3.5. A Student registered for this Course shall not be permitted concurrent registration for any other Course of Study at this University or any other University unless prior approval of the Senate is obtained for such registration.
- 3.6. A Study may withdraw from a Course Module within two (02) weeks of the commencement of the Semester and also substitute same with another Module or add Country Planning, hereinafter referred to as the Department.

## 4.0 Course of Study

- 3.7. The Course of Study leading to the Degree shall envelope inter alia the Human Settlements in both Urban & Rural Sectors in its Planning and Implementation based on the integration of its Physical, Economic, Social & Environmental dimensions and incorporation its Spatial & Non-Spatial attributes.
- 3.8.
  - (a) The Course of Study shall be conducted under the Semester System with Course Module Examinations to be held as set out in Section 5.0
  - (b) Subject to this By-Law the minimum period of study for the Degree shall be Eight Semesters (For this purpose a Semester will normally consist of about 15 weeks excluding examinations and vacations)
- 4.3.
  - (a) The Course of Study and its relevant Modules in each Semester shall be as laid down by Senate.
  - (b) The syllabus and learning outcome for each Module shall be as prescribed by the Senate on the recommendation of the Department of Town &Country Planning and the Board of the Faculty of Architecture hereinafter referred to as the Faculty Board.
  - (c) The Senate may on the recommendation of the Faculty Board approve any change, amendment or addition to the Course Modules, Syllabi, and/or any rules and regulations relating to the Course subject to adequate notice of same being given to the Student.

- 4.4 The Course of study shall consist of:
  - (a) Lectures, Seminars, Tutorials
  - (b) Studio Work and Laboratory Work
  - (c) Field Work
  - (d) Group Project Work
  - (e) Supervised Individual Research Project

## 5.0 Examinations

- 5.1 The Examination of each Module of the Course of Study will be held at the end of each Semester.
- 5.2 To be eligible to appear for the Examination of each Module, a Student shall have followed to the satisfaction of the Senate, the course of Study of the relevant Module in the manner approved by the Senate.
- 5.3 A Student may not be permitted to appear for any Examination unless he/she has satisfied the requirements of the relevant Course Module, including but not limited to minimum of 80% attendance and submission of assignments at the appropriate time.
- 5.4 The Semester Examination prescribed by this By-Law shall be conducted by Examiners appointed by the Senate on the recommendation of the Faculty Board.

5.5

- (a) Each Lecture based Module shall have a Set-Paper Examination.
- (b) Each Seminar or Tutorial Module shall be assessed on the basis of a Presentation in the prescribed manner.
- (c) All Studio Work and Laboratory Work Modules shall respectively have a prescribed number of Assignments in a Portfolio for Assessment.
- (d) Each Field Work Module shall be assessed on a Report not exceeding 800 words.
- (e) Each Group Project Work shall be assessed in respect of every Individual Student on the basis of a Presentation in the prescribed manner before a Panel of Examiners.
- (f) The Individually Supervised Research Project on a topic approved by the Head of Department shall be assessed on the basis of a Report completed and consisting of about 5000 words. A viva-voce may also be held if considered necessary.
- 5.6 A Student shall appear for each Course Module Examination on the first occasion on which the Examination is held after the completion of relevant Course Module. However, if unable to do so, due to reasons of illness, he/she shall appear on a subsequent occasion without penalty, with the approval of the Senate, subject to the completion of the Course requirements for the award of the Degree as per the period approved by the Senate.

## 6.0 Performance Assessment

- (a) The performance assessment for each Course Module shall be in accordance with the grading criteria as prescribed in the Performance Criteria approved by the Senate.
- (b) The award of the Degree and of the Class Rating shall be based on the Overall Grade Point Average in accordance with the Performance Criteria approved by the Senate.

# 7.0 Regulations & Revisions

- 7.1 Regulations under this By-Law may be framed by the Senate and approved by the Council as it deems necessary.
- 7.2 This By-Law may be revised or amended as a when necessary.

# 8.0 Interpretation

8.1 In this By-Law unless the context otherwise requires:

"Council" means the Council of the University of Moratuwa as constituted by the Universities Act No: 16 of 1978

"Senate" means the Senate of the University of Moratuwa as constituted by the Universities Act No. 16 of 1978

"Faculty Board" means the Faculty Board of the Faculty of Architecture of the University of Moratuwa as constituted by the Universities Act. No: 16 of 1978

"Department" means the Department of Town & Country Planning of the University of Moratuwa as constituted by the Universities Act. No: 16 of 1978

8.2 Any question regarding interpretation of this By-Law shall be referred to the Council whose decision thereon shall be final.