

## EDUCATION CHALLENGES OF URBAN PLANNING IN DEVELOPING COUNTRIES (CASE STUDY: COMPARISON OF IRAN WITH SINGAPORE AND INDIA)

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### ABSTRACT

*Population, economic and social enormous growth and revolutions in growth – oriented societies and necessity and control of city, village and region spatial structure, cause to establish urbanization courses as an independent branch of sciences and new knowledge.in the form of process of this program, necessary evaluation of obtaining to goals rate and also recognition of strength and Weak are all– important. According to being new, urbanization in Iran and also lack of researches in this field, obtained results in evaluation field is considered useful in order to benefit experiences of other countries.*

*Urbanization training in Iran has four decade precedence and currently more than 10 collages and higher education center train urbanization field in master's degree and PHD.in our country, expenses of urbanization is not known and western book and knowledge are used and there are a few books about urbanization which have been written by Iranian during history our urbanization, either theatrical or functional is based on transformation system and economy and it is formed by western designs and it was the first comprehensive plan of urbanization which was Tehran's comprehensive plan repressing by an American institute in 1950s and after that all urban comprehensive plans were presented by counselor engineers of iran based on the first plan.*

*Iran has a very huge culture and civilization and has especial index in most fields which is dedicated to this land, therefore architectural and urbanization patterns of our country should be retrieved from Iranian identify and culture but it is not so currently.*

*In this research, it is attempted to present related solution by introducing and identifying urbanization training methods, levels and attitude in Iran and by comparison with considered countries, by using library studies and searching in developing university sites such as Singapore and India and by helping professors of those universities through email.*

**Keywords:** challenge, urbanization train, Iran, India, Singapore.

### INTRODUCTION

There are a lot of discussions about similarities and differences of urbanization training in developed and developing countries.in one hand, this debate existed that whether developing countries should follow different urbanization trainings or they should repeat that western training trend.

Burayidi (1993, 223) called this challenge <dualism approach> in urbanization training against globalization or singularity. Globalization advocates discuss about urbanization training towards a global method which emphasize on similarities more than difference between developed and third world countries and because of increasing correlation between

difference societies, they believe that because of increasing correlations between societies and even more require to intercultural cooperation, needs to reduce vacuum between expert and knowledge in developed countries and third world countries gets more and by fading out international boundaries, needs to world training become more (afshar,2001)

In contrast, dualism advocates in urbanization training are emphasized on severe differences between value systems, development levels and economic-social priorities among developed and third world countries (Burayidi, 1993 ,223).these challenges forced developing countries planners to learn different experts for succeeding programming process in contrast to planners of developed countries. For example, however, proposed plan in developed countries should be accepted by public or residences of a region, but in developing countries, this plan issued by appointed or selected authorities. This means that however relational experts are the most important expert in developed countries (Ospodin: skayannis, 2006), technical expert in the most important required for planner in developing countries.

Therefore, it is clear that exports which should be trained to urbanization students in developing countries such as Iran, are not similar with developed countries necessarily. Present study deals with evaluation of urbanization training in studied countries and effective factors on it.

## **STUDY GOALS**

Main goal of this study is to identify and analyst is of urbanization training method in developing countries, in order to improve and eliminate urbanization training challenges in our country Iran. We can promote urbanization training in Iran by identifying urbanization method in developing countries and eliminate existed challenges.

## **RESEARCH QUESTION**

1. Is there any difference in urbanization training in developing countries and Iran?
2. Do existed challenges in urbanization training in Iran eliminate by patterning from developing countries?

## **HYPOTHESIS**

Every country and university have special training for themselves and apply their attempts in order to improve and promote it. In every country and its educational system, there are a series of challenges which we can remove all these problems by identifying and analysis of them.

Iran is of third world countries and has server defects in urbanization training and existed courses are weak and inefficient. The way of urbanization in Iran can eliminate most of challenges and problems by patterning from developing countries. According to identify and culture of every country is important in training programming and urbanization.

## **RESEARCH METHOD**

The attitude which rules over this study is library, and lyric and comparative. In this study, definitions and related hypothesis are collected through library studies. Also, a part of needed information is obtained through evaluation of different university sites of developing countries and helping from related and studied professor universities. In the next stage, it deals with analysis and comparison of applied training in Iran, Singapore and India and at the end necessary propositions are presented.

In this study, Tehran University, national university of Singapore, CEPT University in India are evaluated and studied as a sample.

## **DISCUSSION SUBJECT**

Urbanization training is formed in two forms of social formations include: national training system and regional and urban planning occupation. These formations are defined, in turn, in the form of economic and social formations. National training system determines urbanization training place (in public or technical universities) and structural current situation and its general goals. Urbanization occupations define attitude orientation and university learning's application and thus become as a commentator of education period. These two mutual forces continue urbanization training in a discussable current.

Urbanization training system has observed a calm period rarely. Even in western countries, such as North America, urbanization training is furtherer that its content retailers a public expand agreement. Mann (1970) spoke about an unknown future of urbanization training. Alonso and Kruekebery posed urbanization training pattern transformation in America separately. Academic planners pay attention to urbanization training mutuality's.

By different idea logic necessities recently. Discussable point is that there is not an urbanization training world pattern which could evaluate third world urbanization programs in compassion with it. What should be, depends on orientation and attitude of urbanization occupation and social atmosphere of country. Urbanization training in developing countries should be evaluated in the form of formation of structures and national needs.

## **URBANIZATION TRAINING DISCUSSION IN THIRD WORLD**

General discussion about urbanization training for third world is concentrated about method and work flow construction. Other discussion axis is the role of western urbanization schools in training planners of third world countries. In these discussions, motivation and interest of western countries to urbanization training are defined in third world and most of writing of individuals such as Abrams, Oberlandet, iatrides, Dix, Rodwin and others are considered. Increase of political economic approach in expansion studies cause to emerge subjects such as dependency, deodorization and thought.

Self-efficacy in third world. these beliefs has prepared the field for elimination of third world urbanization training conduction motivation and cause to promote mutual learning thoughts and corresponding studies which are bases for attracting western world about third world urbanization subject. World orienting trend and emerging critics related to women role and cultural subjects in social science cause to redefine third word studies in western institute. Realis of areocentric hypothesis in social sciences is increasing day by day. East – friended thesis of said highlights observation especial method, categorization, description and ruling ever pre- judgment value of historical inferences and anthology. There ideas empowers mutual learning thought as a base of third world studies in western urbanization programs. Main direction of this exciting discussion is western university yet. Except a few point, third world countries imageries about urbanization training are not considered.

Current discussions about urbanization training, without enough attention to third world attempts has been failed in response to urbanization training needs, therefore, western institute and universities are responsible for filling this void. Numbers and attitudes of program and urbanization periods which are gathered in 1970s and 1980s are identified less. generally ,it is believed that such courses existed where third world needs do not meet enough .Redvin observations which know urbanization studies courses in third world as weak, inefficient and classic, confirm this hypothesis.

## UNIVERSITY OF TEHRAN (IRAN), MASTER OF SCIENCE IN URBANIZATION

**Field Definition**

Master of Science in urbanization programming is a course that graduates could learn necessary knowledge for preparing urban expanding designs which are required for country during this field and could commit a suitable relation between other urbanization programs and observation and caring on stable urban expanding based on policies and issued designs.

**Course Goals**

1. Expanding knowledge and urban programming expert in order to train aware and efficient human force that can have a fundamental role in country urban development conduction.
2. Training expert human force which are needed for satisfying requirements of urban programming in country

**Necessity and importance**

Master of science in urbanization was performed in urbanization campus university from 1350 by two orientation of (( urban design )) and urban and regional (( planning)) and in 1365 curriculum of these courses were reviewed by those orientations of 1350s and were performed after vatic nation of ministry of culture and higher education by a little change up to now.

**Period time and system form**

Master of Science in urbanization programming takes at least 3 semesters and at most four semesters (according to an educational semester for those students who need to pass deficit lessons).

**Number and kinds of courses:**

Main lessons 22 courses

Optional lesson 6courses

Thesis 4courses

Total courses: 32 courses

Those accepted students who their master fields are other than urbanization engineering or master of urbanization, should pass at least 10 courses and at most 12 courses as deficit lessons which should be presented in a semester. Table 1

**Table1. Deficit lessons of Master of Science of Thran University**

| Row | lesson                            | number of hours |            |        | number of courses |            |        | prerequisite |
|-----|-----------------------------------|-----------------|------------|--------|-------------------|------------|--------|--------------|
|     |                                   | total           | functional | theory | total             | functional | theory |              |
| 1   | Urban economic                    | 32              | 0          | 32     | 2                 | 0          | 2      |              |
| 2   | Urban sociology                   | 32              | 0          | 32     | 2                 | 0          | 2      |              |
| 3   | City history                      | 32              | 0          | 32     | 2                 | 0          | 2      |              |
| 4   | Statistics and probability        | 32              | 0          | 32     | 2                 | 0          | 2      |              |
| 5   | Quantities models in urbanization | 32              | 0          | 32     | 2                 | 0          | 2      |              |
| 6   | System usage of urban information | 32              | 0          | 32     | 2                 | 0          | 2      |              |
| 7   | Identification of urban systems   | 32              | 64         | 32     | 4                 | 2          | 2      |              |
| 8   | Advanced English                  | 32              | 0          | 32     | 2                 | 0          | 2      |              |
| 9   | Urbanization plan                 | 144             | 128        | 16     | 5                 | 4          | 1      |              |
|     | Total                             | 464             | 192        | 272    | 23                | 6          | 17     |              |

Main courses of urban planning are shown in table 2:

**Table 2. main lessons in Master of Science of Tehran University**

| Row | lesson                        | number of hours |            |        | number of courses |            |        | prerequisite  |
|-----|-------------------------------|-----------------|------------|--------|-------------------|------------|--------|---|
|     |                               | total           | functional | theory | total             | functional | theory |   |
| 1   | Urban planning theory         | 48              | 0          | 48     | 3                 | 0          | 3      |   |
| 2   | Urban planning methods        | 48              | 0          | 48     | 3                 | 0          | 3      |   |
| 3   | Time applied planning         | 32              | 0          | 32     | 2                 | 0          | 2      |   |
| 4   | Urban transformation planning | 32              | 0          | 32     | 2                 | 0          | 2      |   |
| 5   | Urbanization thought trend    | 32              | 0          | 32     | 2                 | 0          | 2      |   |
| 6   | House planning                | 32              | 0          | 32     | 2                 | 0          | 2      |   |
| 7   | Urban planning workshop 1     | 96              | 96         | 0      | 3                 | 3          | 0      | Urban planning theory                               |
| 8   | Urban planning workshop 2     | 96              | 96         | 0      | 3                 | 3          | 0      | Urban planning methods<br>Urban planning workshop 1 |
| 9   | Seminar                       | 32              | 0          | 32     | 2                 | 0          | 2      |   |
|     | total                         | 448             | 192        | 256    | 23                | 6          | 17     |   |

Optional lessons of urban planning has been shown in table 3.

**Table 3. optional lessons of Master of Science of Tehran University**

| Row | lesson   | number of hours |            |        | number of courses |            |        | prerequisite |
|-----|--|-----------------|------------|--------|-------------------|------------|--------|--------------|
|     |  | total           | functional | theory | total             | functional | theory |              |
| 1   | Improvement and modernization                    | 32              | 0          | 32     | 2                 | 0          | 2      |              |
| 2   | Urban rights                                     | 32              | 0          | 32     | 2                 | 0          | 2      |              |
| 3   | Urban problems seminar                           | 32              | 0          | 32     | 2                 | 0          | 2      |              |
| 4   | Programming basics and urban environment design. | 32              | 0          | 32     | 2                 | 0          | 2      |              |
| 5   | Urban management                                 | 32              | 0          | 32     | 2                 | 0          | 2      |              |
|     | total  | 192             | 0          | 192    | 12                | 0          | 12     |              |

Goal and topic of professional lessons of Master of Science in Tehran University are as follow:

### Urban Planning Method

#### Goal

1. Familiarity with concept, process and theories of urban planning
2. Reviewing on contemporary planning theories.
3. Urbanization theory: approach and content
  - ✓ Rationalism ( comprehensive planning)
  - ✓ Empiricism and functionalism
  - ✓ Social function and critical theory
  - ✓ Normative and ethical theories
  - ✓ Discussion and interaction
  - ✓ Functionalism movement
4. Conclusions

### ***Lesson Topic***

1. Planning process
2. Definition and concepts related with urban planning, improvement and special improvement, special structure and special organization.
3. Urban Planning Theories
  - 3.1. Place theories
  - 3.2. Growth pole and related concepts.
  - 3.3. Center or environment theory
  - 3.4. Concentration return theory
  - 3.5. Urban functions theory in rural improvement (UFRD)
  - 3.6. Mutual (or two –way) bound theories of city and village and urban network.
  - 3.7. Theories related to city dimension.
  - 3.8. Theories related to planning and expanding metropolitan regions.
  - 3.9. Theories related to urban systems.
  - 3.10. Globalization and urban development phenomenon

### **Urban Planning Method**

#### ***Goal***

1. Familiarity with analysis methods and urban special structure prediction.
2. Familiarity with methods of combination of urban studies

### ***Lesson Topics***

1. An introduction on urban planning, urban planning process and urban planning methods.
2. Analysis and prediction methods.  
Analysis methods and prediction of economic activities.
3. Analysis methods of cities special structures.
4. Analysis methods.
5. Evaluation methods.
6. Evaluation methods of bio-environment effects.
7. Methods of study combinations.

### **Applied Planning of Earth**

#### ***Lesson Goal***

Familiarity with theories and world and Iran experiences in earth applied planning, evaluation of economic, social, cultural, skeletal and bio-environmental dimensions of land use, per capita and land use indexes, rules and principals of land use, land use in urban development designs and densities, land use and transformation.

#### ***Lesson topic***

1. Land use problem identification.
2. Economic, social and cultural dimension of land use.
3. Skeletal and bio- environmental dimensions of land use.

4. Land use planning theories
5. Land use and stable development.
6. Land use patterns.
7. Land use position in urban development designs.
8. per capita and indexes in land use.
9. per capita and land use indexes in world.
10. per capita and land use indexes in Iran.
11. History and experiences in land use planning in Iran.
12. Land use and density.
13. Land use and transformation
14. Rules and principles of land use.

### **Urban transformation planning**

#### ***Goals***

1. Familiarity with planning basics of intercity transportation
2. Applying methods for using existent facilities
3. Imposing actions in order to improve displacements situation and to reduce its problems.

#### ***Lesson Topic***

1. History of transportation in Iran
2. Studies of town transportation in Iran
3. Structure of transportation planning process structure.
4. Patterning –modeling (production, distribution, separation and journey dedication)
5. Journey uses.
6. Kinds of public transportation system and its specification.
7. Development of new public transportation systems.
8. Kinds of communication network systems.
9. Inter-town network systems analysis.
10. Network capacity –service level.
11. Planning for pedestrian traveling.
12. Planning for bicycle riding
13. Static traffic
14. Contaminations of motor vehicles traveling and methods of encountering with them.
15. Inter town transportation management.

### **Paths of Urbanization Thoughts**

#### ***Goal***

Awareness about how to form contemporary urbanization and changes which are happened in it, are the most general subject for receiving and understanding deep transformations of



contemporary urbanization. Vast changes after industrial revolution has given a global dimension to thought way and attitude toward town.

Entrance of car and technical inventions into different cities has given a more and less similar outlook generally in all over the world and especially in back warded society cities.

Current situation of city in these societies, is not that should be burned form the heart of historical revolution; therefore its identification of what cause to cut it historically is necessary.

Lack of recognition of concepts, thoughts and their special-physical manifestations in city will prevent us from creating future revolutions of city without any doubt.

### ***Topic Lesson***

1. Identification of theories, concepts, patterns and attempts which were expressed after industrial revolution Especially by encountering with city phenomenon and generally by bio centers, in 14<sup>th</sup> century and how theorizing of this century can effect on current century.
2. Identification of theories, concepts, patterns and special – physical manifestations in different parts of world.
3. Identification of revolution, process and thought changes of urbanization from 1960s up to now.
4. Obtaining suitable methods for encountering with bio centers problems in micro and macro scales and finding a suitable definition for it in Iran.
5. An introduction on bio-complexes revolution trend in 19<sup>th</sup> century, emerging different schools and theories of pre-urbanization and urbanization.
6. future- oriented and nature-oriented pre planners (19<sup>th</sup> century add)
7. future-oriented and culture –oriented and nature-oriented planners (6 first decades of twenty the century ad)
8. Revolution and evolutions in thoughts and urbanization ideas.
9. Basic analysis of city
10. Summation and conclusion.

### **House Planning**

#### *Goal*

Familiarity with theories and experiences of Iran and world in house planning , evaluation of economic , social , culture and skeletal dimensions of house , house indexes , recognition of qualitative and quantitative goals of house planning , analysis of house planning in Iran , supply and demand factors , management and organizations , house position in policies , programs and urban development plans , evaluation of house patterns , house planning process in national and regional scales .

#### *Topic Lesson*

1. Recognition of house problem.
2. Economic, social, cultural, skeletal and bio – environmental dimensions of house.
3. House planning theories.
4. House indexes in Iran.
5. House indexes in world.
6. Supply and demand factor of House.



7. Problems and position of earth in house.
8. Position of construction materials in house planning.
9. House planning history in Iran.
10. House planning analysis in Iran.
11. House planning process in national scale.
12. House planning process in local scale.
13. House position in programs and urban development designs.
14. House and residential environment.
15. House patterns and density.
16. Organization management, organizations, rules and principles of house.

### **Urban Planning Workshop 1**

#### *Goal*

The goal of performing this workshop is to apply theoretical knowledge and these which are learned in the form of theoretical lessons of urban planning in order to prepare an urban strategic approach for a small city.

#### *Topic Lessons*

1. Selecting work group and studied city.
2. An abstract review on framework and strategic designs concepts.
3. Performing early required studies and preparing SWOT table.
4. Referring to considered city and holding commentary meetings with beneficiaries.
5. Compilation of primary design landscape.
6. Commenting and participation of beneficiaries about future landscape of city and its dilution.
7. Presenting strategies and action plans.
8. Commenting and participation of beneficiaries and hiding strategies and action plans.
9. Preparing final report.

### **Urban Planning Workshop 2**

The main goal of this workshop is to complete and continue workshop 1, and applying theoretical knowledge and functional aspects and professional abilities of students in scientific and functional understanding of new urban development designs, evaluation of existed urban development designs or organizational designs of urban content.

#### *Topic lesson*

First section (Group work):

1. Introduction of considered urban development design.
2. Evaluation of theoretical basics of considered designs.
3. Theoretical framework and research method work method.
4. Preparing new design, evaluation of design and selected urban context, preparing organizational Design of selected urban context in obtained criteria forms from theoretical basics of considered design and work theoretical framework accompanied by presenting alternatives, evaluation alternatives and justifying reports of final plan.

Second section (individual work):

1. Preparing and presenting new plan in smaller skeletal divisions scale.
2. Feasibility of performance and verification of plan goals.

### **Seminar:**

#### **Goals**

To get familiar with concepts, principals, general and total conditions and rules of preparing thesis (such as: definition and goal of preparing thesis, subject selection method, and guide professor selection, research method set up and...)

#### **Lesson Topics**

1. Importance and characteristics of thesis.
2. Role of guide professor and consultant.
3. Effective factors in selecting subject.
4. Subject relation with urbanization field.
5. Novelty and non-repeating
6. Determination of topics and also lightening of goal and research method.
7. Necessity of writing topic by English language.
8. Studying subject history.
9. Preparing questions or theories
10. Preparing study plan.
11. Preparation and adjusting theoretical frame work.
12. Presenting and preparing report.
13. Research method
14. Number selection condition and kinds of special samples.
15. Descriptive analysis of mental and qualitative processes, internal understanding.
16. The role of environment psychology.
17. Observation method.
18. Thesis elements: abstract, subject lists, figure, maps, introduction, chapters, conclusion and suggestions, indexes, references, formats and thesis form.

## **NATIONAL UNIVERSITY OF SINGAPORE**

### **Programmer Objectives**

The Master of Urban Planning (MUP) is a two-year multi-disciplinary programmer that offers motivated individuals with all the necessary spatial design and intellectual skills to become urban planning professionals that will meet the challenges of a rapidly urbanizing world. The programmer builds on existing teaching content and research strengths of the Departments of Architecture and the Department of Real Estate, namely Spatial Design, Sustainability and Development Financing.

The programmer seeks to produce graduates who, as individuals, are global citizens and responsible members of society, make ethical choices in matters of environment and society, and as well-rounded planning professionals, are equipped with urban planning and spatial design and communication skills to contribute to the development of sustainable cities and regions. In addition, they learn to be holistic in the analysis and understanding of complex

underlying issues that impact cities and regions, focus on the physical planning and the spatial design of the overall structure or individual elements of the territory, and adopt an integrated approach in developing multi-disciplinary planning solutions.

Candidates are selected on the basis of their academic qualifications and relevant industry experience. An applicant must submit the following:

1. Evidence of at least a bachelor's degree in a spatial design discipline (Architecture, Landscape Architecture, Urban Design, Urban Planning) or a related field of study (Urban Studies, Geography, Real Estate, Civil Engineering)
2. The graduation requirement is 80 modular credits (MCs) and with a Cumulative Average Point (CAP) of at least 3.00. The 80 MCs are attained by completing the following:
  - a. Four Essential Modules (Studio Projects) comprising 24 modular credits (MCs),
  - b. Seven Essential Modules (Non-Studio) comprising 28 modular credits (MCs)
  - c. Seven Elective Modules, selected from the multidisciplinary basket of approved modules, comprising 28 modular credits (MCs).
3. The MUP programmer is designed to be completed in four semesters (two years) on a full-time basis. Full-time candidates must complete the requirements of the programmer within a maximum candidature period of six semesters (three years).

The syllabus chart and the number of syllabuses at Singapore National University are described in the following table.

**Table 4. Graduate Course Syllabus at Singapore National University**

| <b>Essential Modules</b> |   | <b>Offered in</b> |
|--------------------------|---|-------------------|
| <b>Year 1 Semester 1</b> |   | 20                |
| <b>DEP5101</b>           | Urban Analysis Workshop                             | 4                 |
| <b>DEP5101A</b>          | Qualitative Methods for Urban Planning              | 4                 |
| <b>DEP5104</b>           | Urban and Regional Economics                        | 4                 |
| <b>UD5521</b>            | Planning Process                                    | 4                 |
|                          | Elective Module 1                                   | 4                 |
| <b>Year 1 Semester 2</b> |   | 20                |
| <b>DEP5103</b>           | Urban Planning Studio                               | 4                 |
| <b>DEP5103A</b>          | Quantitative Methods for Urban Planning             | 4                 |
| <b>DEP5102</b>           | Urban Planning History and Theory                   | 4                 |
|                          | Elective Module 2                                   | 4                 |
|                          | Elective Module 3                                   | 4                 |
| <b>Year 2 Semester 1</b> |   | 20                |
| <b>UD5601</b>            | Urban Design Studio                                 | 8                 |
| <b>DEP5105</b>           | Urban Infrastructure & Mobility Systems             | 4                 |
|                          | Elective Module 4                                   | 4                 |
|                          | Elective Module 5                                   | 4                 |
| <b>Year 2 Semester 2</b> |   | 20                |
| <b>DEP5106</b>           | Integrated Urban Planning Studio                    | 8                 |
| <b>ISD5105</b>           | Principles of Sustainable Development               | 4                 |
| <b>DEP5107</b>           | Planning Report OR                                  | 8                 |
|                          | Elective Module 6 and Elective Module 7 (4 MC each) |                   |
| <b>Total</b>             |   | 80                |

In the following, the objectives of the main courses of the master's degree in urban planning of this university are only stated.

### **Urban Analysis Workshop (Semester 1)**

This Workshop module is a precursor to the other Design Studios. Planners are often called upon to make decisions based on empirical studies, spatial and statistical data. A practical introduction to methods and skills in urban planning analysis, including data gathering, overview of GIS and mapping, urban structure & growth trends, transportation patterns etc., for informed decision making. Students will apply these to specified areas to identify issues and to articulate planning problems.

### **Urban Planning Studio (Semester 2)**

This studio-based module develops skills and mindsets for integrative thinking. Students will be organized into teams and assigned a design and planning brief for a district in a city or metropolitan area. Students will undertake an urban analysis to identify the key planning issues and to propose integrated and sustainable planning solutions.

### **Urban Design Studio (Semester 1)**

This module is offered in the MAUD programmer. It brings together the theoretical and practical aspects of urban analysis and urban design. The studio will analyses successful urban design projects in the form of case studies, then using urban design projects of appropriate scales that deal with programming, planning and design, the studio will undertake the design of urban spaces that integrate social, economic, environmental, and physical concerns.

### **Integrated Urban Planning Studio (Semester 2)**

This studio module is the culmination of the MUP programmer where the students have a hands-on opportunity to synthesize the theory and practice of urban planning and spatial design. The students will scope out a planning problem for themselves, design the appropriate process for a planning solution, and then, pursue that process to its conclusion. The studio will focus on a more advanced and specific planning challenge that will require an integrated physical planning solution across disciplines. The scope and scale of the studio is likely to have an international or comparative focus, and will involve one or more field trips, the cost of which will be borne by the student.

### **Qualitative Methods of Urban Analysis (Semester 1)**

This module introduces the qualitative methods typically undertaken in planning analysis and policy formulation. The module will covers the various kinds of qualitative research projects, data collecting and analysis, developing conclusion, and writing the research report. This module is taken together with UP5101 Urban Analysis Workshop

### **Quantitative Methods for Urban Planning (Semester 2)**

The module will cover the fundamental statistics and the various statistical techniques used in the analysis of qualitative and quantitative data, and hands-on opportunities in the use of spreadsheet programs and statistical software package to perform various analyses. This module is taken together with UP5102 Urban Planning Studio

### **Urban Planning History & Theory (Semester 1)**

This module covers an overview of the meaning and purpose of planning, a focused study of various theories of planning. The course will provide a critique of traditional and rational comprehensive model, and applicability of alternative theories, particularly in the context of changing urban environment.

### **Urban and Regional Economics (Semester 2)**

This module provides the student with an understanding of the principles in the urban and regional economy. The module uses economic analysis to explain issues relating to policies and economics in urban and regional growth. Some of the topics covered include why cities exist, why firms cluster, and city growth, land rents and land use patterns, real estate cycles, land use planning, location decisions of firms, industries, and households, roles of local government, public finance and regional competitiveness policies.

### **Urban Infrastructure & Mobility Systems (Semester 1)**

The module introduces students to the technological and urban design aspects of infrastructure and mobility systems including the impact on land use, operational requirements, environmental issues, and key policy issues confronting decision makers

### **Planning Process (Semester 1)**

This module equips students with a good knowledge of the urban planning process, particularly the quantitative, research, and policy considerations. It examines the relationship between urban planning and urban design from the practitioner's perspective. Extensive reference with case studies will be made to the Singapore planning process at the various levels. It also helps participants to develop a sound understanding of the integrated nature of urban planning and design processes and how this can be reinforced to achieve a more efficient and attractive urban environment.

### **Principles of Sustainable Development (Semester 2)**

The accelerated, often rampant, growth of cities affects the quality of their inhabitants' lives, their ecological footprints and community bonds. Coping with urban growth affects those in the city, and those in per-urban, agricultural areas. The module investigates historical and economic forces shaping birth and growth of cities, identifies the forces of urbanism that have a direct and indirect impacts (such as transport infrastructure) and offers insights and new models for sustainable rejuvenation and growth of cities in Asia.

## **CEPT UNIVERSITY IN INDIA**

Town and Country Planning being a multi-disciplinary discipline, the curriculum for the Postgraduate Programmed need to take into consideration the various basic qualifications eligible for post-graduation in town and country planning viz. (I) Bachelor of Architecture, or (ii) Bachelor of Engineering (Civil), or (iii) Bachelor of Planning, or (iv) Post graduation in Geography or Economics or Sociology. Besides the model curriculum for postgraduate programmers in Town and Country Planning also needs to impart such basic skills that would help students later in their careers to serve in various professional capacities in planning, development and management agencies in the public sector as well as in private consultancy organizations. During the programmer, the students are also required to be equipped with critical knowledge of basic theories, techniques, and design concepts so that they can assume their assigned professional roles as members of multi-disciplinary teams which invokes survey, analysis and plan making be it in the area of urban planning, development and management, regional planning, housing, transport planning, infrastructure planning, environmental planning and other related disciplines.

The chart of courses and the number of courses at the CEPT University of India are described in the following table.



**First Year: Integrated First Semester****Core Subjects**

In. C.1.1 : Planning History and Theory  
 In. C.1.2 : Socio-economic basis for Planning  
 In. C.1.3 : Planning Techniques  
 In. C.1.4 : Infrastructure and Transport Planning  
 In. C.1.5 : Housing and Environmental Planning  
 In. C.1.6 : Studio course

**Second Year: Third Semester****Core Subjects**

UP. C.3.1 : Urban Development Management  
 UP. C.3.2 : Project Planning and Management  
 UP. C.3.3 : Urban Governance  
 UP. C.3.4 : Politics and Planning  
 UP. C.3.5 : Studio

**Elective Subjects** (Select any one)

UP. E.3.1 : Environment, Development and Disaster Management  
 UP. E.3.2 : Energy, Climate change and Urban Development

**First Year: Second Semester****Core Subjects**

UP. C.2.1 : City and Metropolitan Planning  
 UP. C.2.2 : Infrastructure Planning  
 UP. C.2.3 : Urban Heritage Conservation  
 UP. C.2.4 : Advanced Planning Techniques  
 UP. C.2.5 : Studio Course

**Elective Subjects** (Select any one)

UP. E.2.1 : Inclusive Urban Planning  
 UP. E.2.2 : Planning for Tourism

**Second Year: Fourth Semester****Core Subjects**

UP. C.4.1 : Development Finance  
 UP. C.4.2 : Legal Issues and Professional Practice  
 UP. C.4.3 : Thesis

**Table 5. Graduate Certificate Course in Indiana CEPT University**

| Name of the Subject       |                                       | Hrs. Per Week+<br>L + T | Credits | Marks               |                          |       |
|---------------------------|---------------------------------------|-------------------------|---------|---------------------|--------------------------|-------|
|                           |                                       |                         |         | Internal Assessment | End Semester Examination | Total |
| INTEGRATED FIRST SEMESTER |                                       |                         |         |                     |                          |       |
| Core Subjects             |                                       |                         |         |                     |                          |       |
| In. C.1.1                 | Planning History and Theory           | 2 + 1                   | 2       | 50                  | 50                       | 100   |
| In. C.1.2                 | Socio-economic basis for Planning     | 2 + 1                   | 2       | 50                  | 50                       | 100   |
| In. C.1.3                 | Planning Techniques                   | 2 + 1                   | 2       | 50                  | 50                       | 100   |
| In. C.1.4                 | Infrastructure and Transport Planning | 2 + 1                   | 2       | 50                  | 50                       | 100   |
| In. C.1.5                 | Housing and Environmental Planning    | 2 + 1                   | 2       | 50                  | 50                       | 100   |
| Sub-Total                 |                                       | 10 + 5                  | 10      | 250                 | 250                      | 500   |
| Studio                    |                                       |                         |         |                     |                          |       |
| In. C.1.6                 | Studio course                         | 3 + 0                   | 2       | 100                 | -                        | 100   |
| Sub-Total                 |                                       | 3 + 0                   | 2       | 100                 | -                        | 100   |
|                           | Studio Assignments                    | 0 + 12                  | 8       |                     |                          |       |
|                           | Film Appreciation                     |                         |         | 50                  | -                        | 50    |
|                           | Literature Review                     |                         |         | 50                  | -                        | 50    |
|                           | Area Appreciation                     |                         |         | 50                  | 50                       | 100   |
|                           | Site Planning                         |                         |         | 50                  | 50                       | 100   |
|                           | City Development Plan                 |                         |         | 50                  | 50                       | 100   |
| Sub-Total                 |                                       | 0 + 12                  | 8       | 250                 | 150                      | 400   |
| Total                     |                                       | 13 + 17                 | 20      | 600                 | 400                      | 1,000 |

| Name of the Subject                |  | Hrs. Per Week <sup>+</sup><br>L + T | Credits | Marks               |                          |       |
|------------------------------------|--|-------------------------------------|---------|---------------------|--------------------------|-------|
|                                    |  |                                     |         | Internal Assessment | End Semester Examination | Total |
| SECOND SEMESTER                    |  |                                     |         |                     |                          |       |
| Core Subjects                      |  |                                     |         |                     |                          |       |
| UP.C.2.1                           | City and Metropolitan Planning                 | 2 + 1                               | 2       | 50                  | 50                       | 100   |
| UP.C.2.2                           | Infrastructure Planning                        | 2 + 1                               | 2       | 50                  | 50                       | 100   |
| UP.C.2.3                           | Urban Heritage Conservation                    | 2 + 1                               | 2       | 50                  | 50                       | 100   |
| UP.C.2.4                           | Advanced Planning Techniques                   | 2 + 1                               | 2       | 50                  | 50                       | 100   |
| Elective Subjects (Select any one) |  |                                     |         |                     |                          |       |
| UP.E.2.1                           | Inclusive Urban Planning                       | 2 + 1                               | 2       | 50                  | 50                       | 100   |
| UP.E.2.2                           | Planning for Tourism                           |                                     |         |                     |                          |       |
| Sub-Total                          |  | 10 + 5                              | 10      | 250                 | 250                      | 500   |
| UP.C.2.5                           | Studio   |                                     |         |                     |                          |       |
|                                    | Project I: Geo-Informatics Laboratory Training | 3 + 0                               | 2       | 50                  | 50                       | 100   |
|                                    | Project II: Development Plan                   | 0 + 12                              | 8       | 250                 | 150                      | 400   |
| Sub-Total                          |  | 3 + 13                              | 10      | 300                 | 200                      | 500   |
| Total                              |  | 13 + 17                             | 20      | 550                 | 450                      | 1,000 |

| THIRD SEMESTER                      |  |         |    |       |       |       |
|-------------------------------------|--|---------|----|-------|-------|-------|
| Core Subjects                       |  |         |    |       |       |       |
| UP.C.3.1                            | Urban Development Management                     | 2 + 1   | 2  | 50    | 50    | 100   |
| UP.C.3.2                            | Project Planning and Management                  | 2 + 1   | 2  | 50    | 50    | 100   |
| UP.C.3.3                            | Urban Governance                                 | 2 + 1   | 2  | 50    | 50    | 100   |
| UP.C.3.4                            | Politics and Planning                            | 2 + 1   | 2  | 50    | 50    | 100   |
| Elective Subjects ((Select any one) |  |         |    |       |       |       |
| UP.E.3.1                            | Environment, Development and Disaster Management | 2 + 1   | 2  | 50    | 50    | 100   |
| UP.E.3.2                            | Energy, Climate Change and Urban Development     |         |    |       |       |       |
| Sub-Total                           |  | 10 + 5  | 10 | 250   | 250   | 500   |
| UP.C.3.5                            | Studio   |         |    |       |       |       |
|                                     | Project I: Geo-Informatics Laboratory Training   | 3 + 0   | 2  | 50    | 50    | 100   |
|                                     | Project II: Management and Governance Plan       | 0 + 12  | 8  | 250   | 150   | 400   |
| Sub-Total                           |  | 3 + 12  | 10 | 300   | 200   | 500   |
| Total                               |  | 13 + 17 | 20 | 550   | 450   | 1,000 |
| FOURTH SEMESTER                     |  |         |    |       |       |       |
| Core Subjects                       |  |         |    |       |       |       |
| UP.C.4.1                            | Development Finance                              | 2 + 1   | 2  | 50    | 50    | 100   |
| UP.C.4.2                            | Legal Issues and Professional Practice           | 2 + 1   | 2  | 50    | 50    | 100   |
| UP.C.4.3                            | Thesis   | 0 + 24  | 16 | 500   | 300   | 800   |
| Total                               |  | 4 + 26  | 20 | 600   | 400   | 1,000 |
| Grand Total                         |  | 40 + 80 | 80 | 2,300 | 1,700 | 4,000 |

In the next, the main and optional courses of this university are stated except for.

## PLANNING HISTORY AND THEORY

Module 1: Evolution of City Building

Module 2: Planning History

Module 3: Definitions and Objectives of Planning

Module 4: Theories of City Development and Planning Theories

## SOCIO - ECONOMIC BASIS FOR PLANNING

Module 1: Nature and Scope of Sociology

Module 2: Community and Settlements

Module 3: Elements of Micro and Macro Economics

Module 4: Development Economics and Lessons from Indian Experiences

## PLANNING TECHNIQUES

Module 1: Survey Techniques and Mapping

Module 2: Analytical Methods

Module 3: Demographic Methods

Module 4: Planning Standards

## INFRASTRUCTURE AND TRANSPORT PLANNING

Module 1: Role of Infrastructure in Development

Module 2: Planning and Management of Water, Sanitation and Storm Water

Module 3: Planning and Management of Municipal Wastes, Power and Fire

Module 4: City Development and Transport Infrastructure Planning, Management and Design

## HOUSING AND ENVIRONMENTAL PLANNING

Module 1: Concepts and Definitions

Module 2: Social and Economic Dimensions

Module 3: Housing and the City



Module 4: Planning for Neighborhoods

**STUDIO COURSE**

Module 1: GIS Applications

Module 2: Remote Sensing

Module 3: Demography

Module 4: Statistical Applications

**CITY AND METROPOLITAN PLANNING**

Module 1: Urban Growth and System of Cities

Module 2: City – Region Linkages

Module 3: Metro and Mega Cities: Problems and Issues

Module 4: Human Settlement Planning, Urban Development Policies and Programmed

**INFRASTRUCTURE PLANNING**

Module 1: Water Supply and Sanitation

Module 2: Solid Waste Disposal and Management

Module 3: Fire and Electrification, and Social Infrastructure

Module 4: Traffic and Transportation

**URBAN HERITAGE CONSERVATION**

Module 1: Introduction to Urban Heritage

Module 2: Heritage Conservation

Module 3: Heritage and Tourism, Policies and Programmed, Legislation

Module 4: Design in Human Habitation

**ADVANCED PLANNING TECHNIQUES**

Module 1: Survey Techniques

Module 2: GIS Mapping

Module 3: Research Design and implementation

Module 4: Analytical Techniques, Presentation and Report Writing

**ELECTIVES (SELECT ANY ONE)**

**INCLUSIVE URBAN PLANNING**

Module 1: Understanding Inclusive Planning

Module 2: Stakeholders Profile and Needs, Access to Shelter, Services and Livelihoods

Module 3: Participatory Planning Process and Policies, Programmed and Legislation

Module 4: Planning interventions

**PLANNING FOR TOURISM**

Module 1: Introduction to Tourism

Module 2: Tourism Sector – impacts

Module 3: Planning for Tourism

Module 4: Policies and Programmed

**STUDIO**

**(a)Project I: Geo-Informatics Laboratory Training**

**(b)Project II: Development Plan**

## **URBAN DEVELOPMENT MANAGEMENT**

Module 1: Introduction to Development Management

Module 2: Urban Development Management

Module 3: Land and Real Estate Development

Module 4: Information System and Urban Reforms

## **PROJECT PLANNING AND MANAGEMENT**

Module 1: Project planning

Module 2: Project Formulation and Appraisal

Module 3: Project Management and Implementation, and Project Evaluation and Monitoring

Module 4: Regulatory Frameworks Governing Projects

## **URBAN GOVERNANCE**

Module 1: Overview of Urban Governance

Module 2: Legislations pertaining to Urban Governance

Module 3: Institutions and Organizations

Module 4: Urban Local Governance and Participatory Processes

## **POLITICS AND PLANNING**

Module 1: Interface between Politics and Planning

Module 2: City and the State

Module 3: Politics related to Planning and Development

Module 4: Politics and Civil Society

## **ENVIRONMENT, DEVELOPMENT AND DISASTER MANAGEMENT**

Module 1: Environment, Development and Disaster Management – Interface

Module 2: Environmental Management

Module 3: Disaster Mitigation and Management

Module 4: Policies and Legislation Pertaining to Environment and Disaster Management

## **ENERGY, CLIMATE CHANGE AND URBAN DEVELOPMENT**

Module 1: Introduction

Module 2: Energy Generation and Consumption.

Module 3: Energy Planning and Management, and Mitigation and Adaptation to Climate Change.

Module 4: Plans, Policies and Strategies.

## **STUDIO**

(a) **Project I: Geo-Informatics Laboratory Training**

(b) **Management and Governance Plans**

## **DEVELOPMENT FINANCE**

Module 1: Overview of Development Finance

Module 2: State Finance

Module 3: Municipal Finance

Module 4: Investment Planning and Financing Mechanism

**LEGAL ISSUES AND PROFESSIONAL PRACTICE**

Module 1: Introduction

Module 2: Understanding of Law

Module 3: Planning Legislation and Policy Formulation and Appraisal

Module 4: Professional Practice

**THESIS****TRAINING ANALYSIS**

After evaluation of training method, lesson charts, goals and their topics in these countries Singapore, India and Iran, we will deal to analysis and compare them with each other in the form of table and chart.

**Table 6. Training analysis in studied countries**

| <i>Country</i>   | <i>Iran</i>                                | <i>Singapore</i>   | <i>India</i>               |
|------------------|--|--|----------------------------|
| Education period | At least 3 semester and at most 4 semester | Four terms (2 years) which completes full time and at most 6 terms (3 years) | 4 semesters                |
| Main courses     | 26 courses                                 | 52 courses   | 76 courses                 |
| Optional lessons | 6 courses                                  | 28 courses   | 4 courses                  |
| Total courses    | 32 courses                                 | 80 courses   | 80 courses                 |
| Teaching method  | lack of attention to lesson topics         | according to lesson topics   | according to lesson topics |

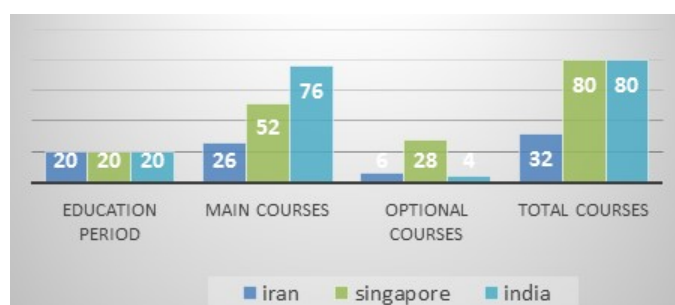


Chart 1: Training Analysis

**CONCLUSION**

The theory that Iran has server shorting in urbanization training. The existed terms are weak and inefficient, may be reevaluated. Iran have to take rapid paces in order to organize urbanization terms. Urbanization training educates amounts of planners which answers current demands more or less. Urbanization terms quality in Iran is low, but is parallel to public training standards and professional work level.

Urbanization in iran couldn't value in stem and philosophical goals which are not suitable for local situation. Work results are not evaluated and past experiences are recorded rarely.

Iran in regal with course period of education term is similar to other developing countries and has 4 semester, but number of courses, is approximately less than half if their courses which has abundant effects an quality of urbanization training of Iran universities.

Lessons' topics of Iranian universities, like other universities, are expressed complete and expensive. In the event, that encountered with lack of suitable attention of some professors which cause to reduce training quality in urbanization.