Ministry of Education

Identified Competency Focus Areas and Core Courses for Ethiopian Higher Education Institutions' Exit Examination

Program: - Urban and Regional Planning in BSc.

Courses and Competencies Identified for Exit Exam ... 15 (First Draft)

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1. Introduction

The Ministry of Education is planning to start exit exams for selected undergraduate programs as of the 2022/23 (2015 E.C.) academic year. The Ministry envisages that the implementation of the exit exam will likely increase the quality education and fill the skill gaps between the demand of the industry and competencies of the graduates.

One of the undergraduate programs selected for the conduct of the exit exam is the 'Urban and Regional Planning program' given in a number of universities across the country. Moreover, there is also an undergraduate program offered in 'Urban Planning' at the Ethiopian Civil Service University'. A total of 60 (a total of 303 ECTS) and 44 (297 ECTS) courses/modules are offered in both five year program of urban and regional planning and urban planning respectively.

Both programs are intended to enable the urban and regional planner to acquire knowledge in multi-disciplinary subjects with major focus on core and subordinate courses. As shown in the Table below, this has been ensured in the program curriculum structure of the 'Urban and Regional Planning' program. The core and subordinate courses account for about 68% of the total ECTS of the program. The freshman and general courses mainly offered in the first year and account for about 25% of the total program load.

Concentration	**Total ECTS**	**Percentage**
Freshman and General courses	76	25%
Urban and Regional Planning Core Courses	147	49%
Urban and Regional Planning subordinate Courses	58	19%
Urban and Regional Planning Skill Courses	22	7%
Total	303	100%

The selection process of the required courses of the "Urban and Regional Planning" has taken into account this program curriculum structure, the learning outcomes and the graduate profile. It is also assumed that the "Urban Planning" curriculum of the Ethiopian Civil Service University" follows the same pattern with slight variations. These are shown in Appendix I and II.

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The maximum number of courses to be selected for the exit exams in accordance with the recommendation of the MOE and global and country wide experiences was set to be a maximum of 15 courses.

1.1. Objectives of the Exit Examination

The national public administration exit exam shall have the following objectives

- To produce skilled and competent manpower to national and international market
- Assessing students' educational achievement in major areas of public administration and development management (PADM)
- Ensuring whether the graduation profile of PADM curriculum have achieved at least common standards of knowledge and practical skills
- Improving public trust and confidence in public administration activities of professionals
- Facilitating the efforts of students to revise the core learning outcomes of the courses covered by the exit examination
- Ensuring all graduates from HEIs satisfy the requirements of the labor market and employability through the national wide implementation of competency-based exit exam
- Creating competitive spirit among PADM departments in Ethiopia with the view to encouraging them to give due attention to the national standards

1.2. Significance of the Document

It is important to set competency areas of the subject matter (program) in order to measure the how much graduates are acquired with skills, knowledge and attitudes. The significance or setting competencies and identifying core courses of the program are;

- To set competencies that helps to assess the basic skills, knowledge and attitude of graduating students; and
- To systematically identify the core courses which will be included the exit exam.

2. Expected Graduate Profile

Urban and regional planning is a profession that deals with the social, economic, political and environmental dynamics of a defined spatial entity in the process of defining the orderly organization of activities in space and time. His/her expertise is the planning of the city and

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its region at large. The planner produces plans (land use, land development, revitalization, urban improvement and the like), programs and strategies for the urban and regional development, protection and management of the urban region. The planner analyses why, how and with what consequences societies intervene, shape, organize and change natural and built environments, in order to secure an agreed range of social, economic and environmental objectives. At the end of the program, the prospective urban and regional planner is able to

- Prepare different urban plans such as city structure/master plan, small town basic plan, neighborhood development plan (NDP);
- Prepare various urban development plans such as economic development plan, social development plan, environmental development plan, transportation plan, physical infrastructure development plan;.
- Prepare different designs such as architectural design, urban design, landscape design, road design, park and recreational site design;
- Develop regional development strategies;
- Conduct urban development studies;
- Coordinate urban development projects;
- Do graphics design with different design and graphics software;
- Conduct urban analysis with Geographic Information System (GIS);
- Conduct urban researches; and
- Teach in higher education institutions

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3. Competency and Learning Outcomes

The urban and regional planner is a profession that deals with change and planning the future. Together with key actors of the local and regional society, economy and culture and on the basis of federal and regional laws, the planner produces a variety of future plans at the different spatial scales ranging from local to regional and interregional. He/she moderates the processes of implementing these plans. The professional practice of planners is based on the study of the natural and built environment and of the historic transformations with regard to the environmental context.

The Exit exam for the undergraduate Urban and Regional Planning program will focus on the major required competencies of graduates as stated in the program curriculum.

3.1. Learning Outcomes

Students are expected at the end of the program to develop knowledge, skills and values necessary for the effective practice of planning, including problem-solving skills, research skills, written, graphical, and oral skills, computational skills, collaboration and working in teams, meeting professional standards, forecasting and scenarios development, adoption and implementation of plans and working with diverse stakeholders.

3.2. Competencies

Accordingly, four main competences of urban and regional planners are:

- Professional
- Methodological
- Social and
- Personal competence

The above competency areas are translated into analytical, communication, decision-making, leadership, software, and project management skills. Therefore, these four competences can be translated into the following categories of skills and the respective learning outcomes:

- ***Knowledge Skills***: Mastery of the theoretical and practical background of Urban and regional Planning including purpose and meaning of planning, planning theory, planning law, human Settlements and history of planning.
- ***Analytical skills:*** Urban and regional planners analyze information and data from a variety of sources, spatial surveys, censuses, physical and impact studies. They use statistical techniques and technologies such as SPSS, Geographic Information Systems (GIS) and Auto CAD in their analyses to determine the significance of the data.
- ***Communication skills:*** Urban and regional planners must be able to communicate clearly and effectively because they interact with colleagues and stakeholders, prepare research reports, conduct public presentations, moderate and meet with a wide variety of audiences, including public officials, interest groups, and community members.

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- ***Decision-making skills:*** Urban and regional planners must weigh all possible planning options and combine analysis, creativity, and realism to choose the appropriate action or plan for approval by local governments and municipalities.
- ***Leadership skills:*** Urban and regional planners must be able to manage urban and regional planning projects, which may include overseeing tasks and planning assignments.
- **Software skills**: Urban and Regional Planners must be skilled on design software's such as AutoCAD, GIS, illustrator, InDesign, Photoshop, and the like.
- ***Project Management skills***: Managing resources (personnel, financial and IT). Before work commence, it is vital to identify a team with the right mix of skills and realistically estimate the time frame and budget required to get the job done. Moreover, planners must be in a position to propose the financial requirements for the implementation of the plan including both the costs and sources of finance for the duration of the project.

4. Courses to be Included in the Exit Exam

The selection of courses for the exit exam was guided by the recommendations of the MOE and global experiences taking into account the previous harmonized and revised curriculums of the 'Urban and Regional Planning' and the 'Urban Planning' curriculum of the Ethiopian Civil Service University. The course, categories and ECTS of the revised curriculum is shown in the annex section.

Accordingly, the maximum courses to be included for the exit exams were set to Fifteen having a total of 77 ECTS: namely; knowledge based (Seven courses with 29 ECTS), Skill based (Six Courses with 38) and Aptitude (Two Course with 10 ECTS). The courses selected and their respective ECTS for the exit exam are listed in the Table below.

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No.	Competency Areas	List of Courses	ECTS	%
1.	Knowledge Based	1. Introduction and History of Urban Planning	4	38%
		2. Theory and Approaches of Urban and Regional Planning	4	
		3. Methods and Principles in Urban Planning	4	
		4. Integrated Land use and Transportation Planning	4	
		5. Urban and its Region Integrated Development	4	
		6. Housing and facilities development	5	
		7. Urban Governance and Management	4	
2.	Skill Based	8. Basic Architectural Design II	5	49%
		9. Urban Project (Urban Design)	7	
		10. Integrated Urban Project V (Town Planning)	12	
		11. Sketching, Drafting & Descriptive Geometry II	4	
		12. Auto-CAD	5	
		13. GIS	5	
3.	Aptitude	14. Applied Mathematics I	5	13%
		15. Communicative English language Skills II	5	

The exit exams have a total of 77 ECTS of which 29 (38%), 38 (49%) and 10 (13%) ECTS are accounted by knowledge, skill and aptitude categories respectively.

5. Conclusion

The exit exam is expected to ensure that students at completion of the program have achieved the expected learning outcomes stated in the program curriculum and briefly discussed above. Moreover, it will create awareness and serve as benchmark both for students and instructors about the key focus and administration of the exit exam in the years to follow.

The implementation process of the exit exam for urban and regional planning in 2022/23 academic year should be initiated early and be developed through feedbacks from other universities offering the program as well as professional associations. Students joining the urban and regional planning program and the prospective graduating students should be informed early about the decision to implement the exit exam in the 2022/23 academic year.

Once the consensus is reached on the courses selected for the exam, then the next step is on how to administer the exit exam. Decision must be met on the content, coverage, depth and type of the exit exams for each of the selected courses, timing and duration of the exam and setting up of a central body to monitor the administration of the exam. Respective universities should have a platform for arriving at a common decision on the content and duration of the exit exam.

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Care must be taken when to conduct the exit exam so that overlapping with the period of the final exams of the regular program is avoided.

It is recommendable to consider the first year of implementation of the exit exam as a pilot year from which lessons can be drawn for possible improvements on coverage of courses, contents and focus of the exit exam and its administration.

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Appendix I: Course distribution by semester and categories of concentration of the New Urban and Regional Planning Curriculum

Year I – Semester One

Course Number	Course Name	ECTS	Categories of Concentration
FLEn 1011	Communicative English Language Skills I	5	Freshman and General Courses
Phys-1011	General physics	5	
Psyc 1011	General Psychology	5	
Math 1011	Mathematics for Natural Sciences	5	
LoCT 1011	(Logic) Critical Thinking	5	
SpSc 1011	Physical Fitness		
GeES 1011	Geography of Ethiopia and the Horn	5	
Total		30	

Year I – Semester Two

Course Number	Course Name	ECTS	Categories of Concentration
Course Number	Course Name	ECTS	
FLEn 1012	Communicative English Language Skills II	5	Freshman and General Courses
Anth 1012	Social Anthropology	4	
Math 1041	Applied Mathematics I	5	
EmTe 1012	Introduction to Emerging Technologies	5	
MCiE 1012	Moral and Civic Education	4	
ECEg 1052	Computer programming	5	
MGMT 1012	Entrepreneurship	5	
Total		33	

Year II – Semester One

Course Number	Course Name	ECTS	Categories of Concentration
URPL 2061	Basic Architectural Design I	6	Core
URPL 2021	Sketching, Drafting & Descriptive Geometry I	4	Skill
ECON 1011	Economics	5	Freshman and General Course
URPL 2081	Introduction and History of Urban Planning	4	Core Course
URPL 2031	Auto-CAD	5	Skill
GITr 1012	Global Trend	4	Freshman and General Course
Total		**28**	

Year II – Semester Two

Course Number	Course Name	Categories of Concentration	
URPL 2171	Urban Sociology	4	Subordinate
URPL 2141	History of Morphology and Transformation of City Forms	4	Subordinate
URPL 2062	Basic Architectural Design II	5	Core

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URPL 2022	Sketching, Drafting & Descriptive Geometry II	4	Skill
URPL 2041	GIS	5	Skill
INCL 1012	Inclusiveness	4	Freshman and general course
URPL 2181	Urban Project I (Land Use Planning on New Site)	6	Core
Total		32	

Year III – Semester One

Course Number	Course Name	ECTS	Categories of Concentration
URPL 3191	Urban Project II (Neighborhood Planning and Design)	8	Core
URPL 3091	Theory and Approaches of Urban and Regional Planning	4	Core
URPL 3111	Integrated Land use and Transportation Planning	5	Core
URPL 3131	Urban Housing	3	Core
URPL 3071	Urban Ecology	4	Subordinate
URPL 3271	Building Construction Technology for Urban Planner	4	Subordinate
Total		**28**	

Year III – Semester Two

Course Number	Course Name	ECTS	Categories of Concentration
URPL 3192	Urban Project (Urban Design)	7	Core
URPL 3161	Urban and Regional Economics	3	Subordinate
URPL 3051	Surveying & Photogrammetry	4	Skill
URPL 3072	Urban Green Infrastructure Planning and Management	4	Subordinate
URPL 3151	Planning and Conservation of Urban Heritages	3	Subordinate
URPL 3092	Methods & Principles in Urban Planning	4	Core
URPL 3132	Housing and Facilities Development Project	6	Core
Total		**31**	

Year III – Semester Summer

Course Number	Course Name	ECTS	Categories of Concentration
URPL 3231	Internship	8	Core
Total		**8**	

Year IV – Semester One

Course Number	Course Name	ECTS	Categories of Concentration
URPL 4201	Integrated Urban Project III (Extension of	10	Skill

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	an Existing City Planning and Design)		
URPL 4101	Urban and its Region Integrated Development	4	Core
URPL 4113	Real Estate in Urban Planning	4	Subordinate
URPL 4162	Municipal Finance	3	Subordinate
URPL 4073	Urban Waste Management	3	Subordinate
URPL 4272	Urban Infrastructure Planning	4	Core
Total		**28**	

Year IV – Semester Two

Course Number	Course Name	ECTS	Categories of Concentration
URPL 4211	Integrated Urban Project IV (Inner City Redevelopment)	8	Skill
URPL 4262	Stakeholder Participation in City Planning	5	Skill
URPL 4121	Legal base of Urban and Regional Planning	4	Subordinate
URPL 4074	Climate Change and Disaster Management In Urban Planning	4	Subordinate
URPL 4114	Asset Valuation and Management	4	Subordinate
URPL 4242	Urban Landscape Design	4	Core
Total		**29**	

Year IV – Semester Summer

Course Number	Course Name	ECTS	Categories of Concentration
URPL 4232	Internship	8	Core
Total		**8**	

Year V – Semester One

Course Number	Course Name	ECTS	Categories of Concentration
URPL 5221	Integrated Urban Project V (Town Planning)	12	Core
URPL 5251	Urban Governance and Management	4	Core
URPL 5261	Research methods and statistics for urban planner	4	Core
URPL 5112	Design of Urban & Regional Nodes	6	Core
Total		**26**	

Year V – Semester Two

Course Number	Course Name	ECTS	Categories of Concentration
URPL 5301	Thesis and Graduation Project	15	Core

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URPL 5102	Appropriate Planning Strategies for Developing Territories (Seminar)	4	Core
URPL 5291	Professional Planning Practice	3	Subordinate
Total		22	

Total ECTS = 303

Appendix II: Course distribution by semester and categories of concentration of the Urban Planning Curriculum of the Ethiopian Civil Service University

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Year I - Semester One			
Course Number	**Course Name**	**ECTS**	**Module Type/Categories of Concentration**
Math1014	Basic Mathematics and Analytic Geometry with Calculus	5	Common
Eco3023	Basic Economics and Urban Economics	5	Cluster
UE1032	Graphic Communication Skill	10	Subordinate /Area Related
UP1041	Urban History	5	Core
Eng1054	Basic English	5	Common
Total		**30**	

Year I - Semester Two			
Course Number	**Course Name**	**ECTS**	**Module Type/Categories of Concentration**
UE1062	Basic and Architectural Design	10	Subordinate
Comp1074	Basics of Computer	5	Common
Stat1084	Basic and Applied Statistics	5	Common
UE1092	Basic Concepts of Soils and Geology	5	Subordinate
SM2102	Surveying	7	Subordinate
Total		`32	

Year II - Semester One			
Course Number	**Course Name**	**ECTS**	**Module Type/Categories of Concentration**
UP2111	Demography	5	Core
UE2122	Basics of Auto-CAD & Archi-CAD	5	Subordinate

UE2132	Working Drawing	8	Subordinate
UP2141	*Urban Geography*	5	Core
UP2151	Urban Sociology	5	Core
UE2162	Architectural Design I	5	Subordinate
Total		**33**	

Year II - Semester Two			
Course Number	**Course Name**	**ECTS**	**Module Type/Categories of Concentration**
UP2171	Site Analysis and Planning Techniques	7	Core
ULMIS2182	Introduction to GIS	8	Subordinate
UE2192	Building Materials and Construction	5	Subordinate
UE2202	Quantity Surveying and Specification	5	Subordinate
Res2213	Research Methodology for Urban Planning	7	Cluster
Total		**32**	

Year III - Semester One			
Course Number	**Course Name**	**ECTS**	**Module Type/Categories of Concentration**
UP3221	Urban Infrastructure and Public Facility Planning	7	Core
UE3232	*Architectural Design II*	5	Subordinate
UP3241	Urban Road Network Planning & Design	7	Core
UE3252	Urban Water and Sewerage System Planning	6	Subordinate
ULMIS3262	*Application of GIS for Urban Planning*	7	Subordinate
Total		**32**	

Year III - Semester Two			
Course Number	**Course Name**	**ECTS**	**Module Type/Categories of Concentration**
UP3271	Urban Transportation and Land Use Modeling	7	Core
UP3281	Theory and Practice of Urban Planning	5	Core

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UP3291	Urban Housing	7	Core
UP3301	Urban Design I	8	Core
UP3311	Urban Settlement Planning Project	8	Core
Total		**35**	

Year IV - Semester One			
Course No.	**Course Name**	**ECTS**	**Module Type/Categories of Concentration**
UP4321	Urban Design II	8	Core
UP4331	Urban Revitalization and Community Planning Project	8	Core
UP4341	Urban-Regional Development Planning	7	Core
UP4351	Urban Land and Growth Management	7	Core
Total		**30**	

Year IV - Semester Two			
Course Number	**Course Name**	**ECTS**	**Module Type/Categories of Concentration**
UP4361	Urban Environmental Planning and Landscape Design	5	Core
ULMIS4372	LIS and Cadaster	8	Subordinate
UP4381	Urban Management and Finance	7	Core
UP4391	Urban Development Planning Project I	10	Core
Total		**30**	

Year V - Semester One			
Course Number	**Course Name**	**ECTS**	**Module Type/Categories of Concentration**
UE5402	Project Mgt and Contract Administration	5	Subordinate
Law5413	Urban Law and policy	5	Cluster
	Refresher course or Training in Research Methodology	P	Cluster
DM5422	Ethics and Public Service Delivery	5	Subordinate
UP5431	Urban Development Planning Project II	10	Core

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Total	**33**	

Year V - Semester Two			
Course Number	**Course Name**	**ECTS**	**Module Type/Categories of Concentration**
UP5441	Final Thesis Project	10	Core
Total		**10**	

Total ECTS = 297

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