KING ABDULAZIZ UNIVERSITY
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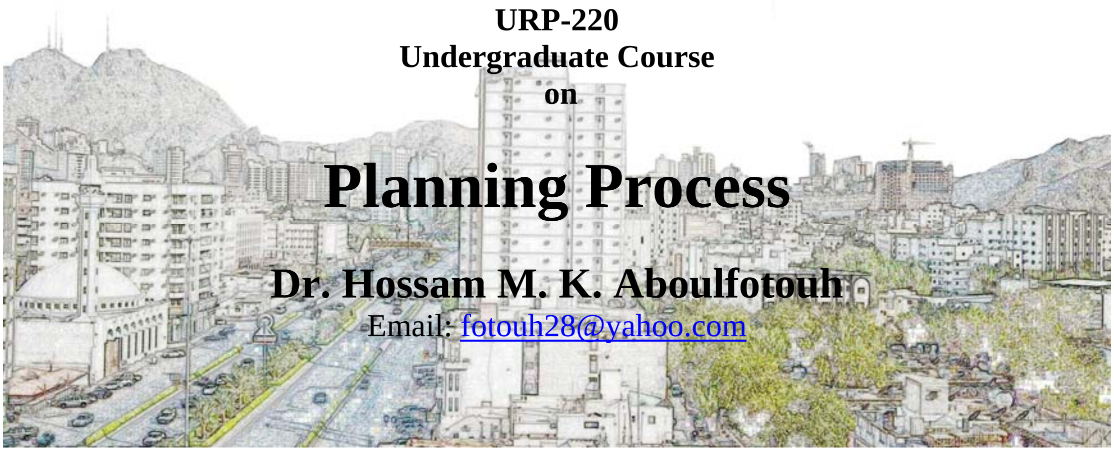

URP-220
Undergraduate Course
on

Planning Process

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Lecture notes#10: Using the Rapid Methods of Qualitative Analysis in the Planning Process for: Selection, Prioritization, and Evaluation of Alternative Solutions.

In the planning process, the planners might use diverse types of qualitative analysis in order to ensure that their planning decisions will be taken based on rational and comprehensive evaluation process. The rapid method is based on giving quantitative scores to each criterion from the chosen set of rational criteria, which some (or all) of them might not imply quantitatively costs or rates of planning standards.

If n is the number of used evaluation criteria and T is the sum of the total scoring, the share of each criterion C from T might be the same and equal to T/n. In some cases, the planners can assign specific weight to each criterion based on its degree of importance or influence; where the hierarchy of weights might be any preferred but rational assumptions (w_1, w_2, w_3, .., & w_n); or follows specific series, and/or using some, or repeated terms of series (s_1, s_2, s_3, …, & s_n), e.g., 0.05 or (0.02, 0.03), 0.05, 0.10, 0.15, 0.25, & 0.40. The following are some of the rapid methods. In all case, in order to get more effective result, planners should formulate rational scale for applying each criterion, and that should be in harmony with the objectives of the other used criteria.

1- Scoring based on using equal weights:

Each criterion from C_1 to C_n takes equal share = T/n

E.g., if n =10 and T = 100, then T/n = 10

2- Scoring based on using the preferred assumptions of weights:

The shares of (C_1, C_2, C_3, .. , & C_n) are (w_1T, w_2T, w_3T, ..,& w_nT) respectively; where the total sum of (C_1, C_2, C_3, .. , & C_n) is T, and the total sum of (w_1, w_2, w_3, .., & w_n) is one.

E.g., if w_1 = 0.12 and T = 100, then the share of $C_{1=}$12.

3- **Scoring based on using series of weights:**

The shares of (C_1, C_2, C_3, .. , & Cn) are (s_1T, s_2T, s_3T, ..,& s_nT) respectively; where the total sum of (C_1, C_2, C_3, .. , & Cn) is T, and the total sum of (s_1, s_2, s_3, …, & s_n) is one.

E.g., if s_3 = 0.05, and T =100, then the share of $C_{3=}$5.

Example:

If n = 3 and T = 100, where w_1, w_2, & w_3 equal 0.4, 0.3, & 0.3 respectively, the following table shows an example of evaluating the planning alternatives using the chosen criteria C_1, C_2, & C_3.

Planning Alternatives	C_1 [Effectiveness] w_1T =40	C_2 [Efficiency] w_2T =30	C_3 [Equity] w_3T =30	Total score [T] 100
Alternative-1	28	22	20	70
Alternative-2	30	24	23	77
Alternative-3	26	22	20	68

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