

No.	Course No.	Course Title	Weekly hours		Credits	Pre-requisite	Learning Type
			Theoretical	Practical			
26	0704451	<b>Reinforced Concrete (1)</b>			3	0704351 0704341	face-to-face
			3	0			
<p>Introduction to materials used in concrete technology, properties of concrete and reinforcing steel bars, failure modes, load resistance factored design method (LRFD), cracked and non-cracked sections. Analysis and flexural design for rectangular beam sections and T- sections, determining of longitudinal reinforcement in the different sections of the beam when it is single or double reinforcing, studying the shear forces and how to resist the diagonal tensile strength of the beams, studying the bonding strength between the reinforcing bars and concrete and determining the end bars. Analysis and design of solid roof slabs based on their outer edges, design of short columns and concrete elements subjected to compressive loads and bending moments, the centric and eccentric columns overlap curves, design of axial centric foundations and the wall foundations.</p>							