An optical fiber consists of a glass core with index of refraction $n_g = 1.52$ surrounded by a coating with index of refraction $n_c = 1.25$. The fiber is submerged in water ($n_w = 1.33$) and light enters the end of the cable from the water at an angle θ as shown. The light strikes the surface between the glass and the coating at the critical angle θ_c so that the light is refracted along the boundary between the glass and the coating. Determine the angle θ.