Problem

Let A be a square n x n matrix over C[X] and write $A = \left[p_{jk}(X) \right]$.
For any $z \in C$ (z being a complex variable) let $A(z) := \left[p_{jk}(z) \right]$, that is a square n x n matrix over C.

Show that matrix A is <u>invertible</u> if and only if matrix A(z) is invertible for all z from C.

Will it be still valid if we change complex numbers into set of real ?