Physics 1A Spring 2015

Challenge Problem 1

The Law of Cosines states that for any triangle with sides of length A, B, and C, the angle θ subtended by sides A and B satisfies

$$C^2 = A^2 + B^2 - 2AB\cos\theta.$$

Prove this law using vector methods (e.g. perhaps things like vector addition, the dot product of two vectors, etc.)