

Math 502, 10:00 am - 11:00 am, M F  
Linear and Functional Analysis, Homework Assignment 2

**Instructor:** Henri Schurz      **bpag** : [http://math.siu.edu/schurz/math\\_02.html](http://math.siu.edu/schurz/math_02.html)  
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**Office Hours**: MWF 11:00-12:00 pm, and by appointment.

**Homework 2: Linear and Hilbert Spaces, Basic Inequalities, FPTs**

- [1.] Prove Theorem 1.2 in separable Hilbert spaces from the notes.
- [2.] Prove the discrete Hölder inequality

$$\forall n \geq 1$$

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