Proof LT-1

Accepted  Not Accepted

I affirm this work abides by the university’s Academic Honesty Policy.

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Print Name, then Sign

- First due date Tuesday, April 22.
- Turn in your work on a separate sheet of paper with this page stapled in front.
- Do not include scratch work in your submission.
- There is to be no collaboration on any aspect of developing and presenting your proof. Your only resources are: you, the course textbook, me, and pertinent discussions that occur during class.
- Follow the Writing Guidelines of the Grading Rubric in the course information sheet.
- Retry: Only use material from the relevant section of the text or earlier.
- Retry: Start over using a new sheet of paper.
- Retry: Restaple with new attempts first and this page on top.

*Ignoramus*, n. A person unacquainted with certain kinds of knowledge familiar to yourself, and having certain other kinds that you know nothing about. – Ambrose Bierce, 1890

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LT-1 (You may ONLY use material up to, but not including, Theorem LTLC)

Given vector spaces $U$ and $V$, prove that a function $T : U \to V$ is a linear transformation if and only if $T(\alpha u_1 + u_2) = \alpha T(u_1) + T(u_2)$ for all vectors $u_1, u_2 \in U$ and all scalars $\alpha \in \mathbb{C}$. 