A Proof That Professor DeBacker considers us (his Math 295 class) to be more important than his children

Recall: Yesterday, 16 September 2008, Professor DeBacker received a phone call. He did not pick up his phone immediately because he claimed that it was less important than us (his class). He then made the side comment that the phone call was more important than his kids.

First, what is importance?

Consider an ordered field (F, P) called 'Importance to Prof. DeBacker' which contains the following three elements: 'Professor DeBacker's children,' 'Professor DeBacker's phone call,' and 'Professor DeBacker's Math 295 class.'

Note: (F, P) may contain more elements than just those three. In fact, intuitively we suspect there may be an element
'Always wearing a University of Michigan mathematics t-shirt.' We do not know anything about the other elements of this field however, and they are unimportant to this proof.

Definition 1. We will call an element a of (F, P) to be 'more important' than an element b of (F, P) provided that $a > b$.

Claim. Professor DeBacker's Math 295 class is more important than Professor DeBacker's children

Proof. Professor DeBacker's comments in class are equivalent to:

$$(Professor\ DeBacker's\ phonecall) > (Professor\ DeBacker's\ children)$$

and

$$(Professor\ DeBacker's\ Math\ 295\ class) > (Professor\ DeBacker's\ phone\ call)$$

Recall: (Lemma we proved in class on 10 September 2008)

Lemma 1. (F, P) an ordered field and
$a,\ b,\ c\ \in F,\ If\ a > b\ and\ b > c,\ then\ a > c$

This is exactly our case. We have an ordered field
'Importance to Prof. DeBacker' which contains three elements
'Professor DeBacker's children,' 'Professor DeBacker's phone call,' and
'Professor DeBacker's Math 295 class.' satisfying the inequalities. Thus:

$$(Professor\ DeBacker's\ Math\ 295\ class) > (Professor\ DeBacker's\ children)$$

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