

Module 3 Handout

Phil 150

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1 Conditionals and Biconditionals

See if you can figure this out on your own. You can check with me if you have difficulty. You can also google “necessary and sufficient condition in logic”

1.1 Sufficient Conditions as Conditionals

Example Getting an A for this class is a *sufficient condition* for passing this class.

This means that You cannot get an A without ?.

In terms of conditional: ? implies ?.

1.2 Necessary Condition as Conditionals

Example Getting a good score on the final exam is a ? for getting an A in this class.

This means that You cannot ? without ?

In terms of conditional: ? implies ?.

1.3 Transcriptions

Let G be “you are a good student” and L be “you love parties.” Transcribe the following sentences:

1. Loving parties is a sufficient condition for being a horrible student.

2. Hating parties is a necessary condition for being a good student.
3. You love parties only if you are a horrible student.
4. You are not a good person unless you love parties.
5. You either hate parties or are a good student, unless loving parties is a sufficient condition for being a good student.