Math 4190 — Goddard

In-class Practice 10: English, Logic and Implications

1. For the following statement:
   “If I have a FaceBook account and never use it, then I am unfriendly.”
   (a) state the converse

   If I am unfriendly,
   then I have a FaceBook account and never use it.

   (b) state the contrapositive

   If I am not unfriendly,
   then it’s not the case that I have a FaceBook account and
   never use it.
   Or: If I am friendly,
   then either I have no FaceBook account or I use it.

2. State one of de Morgan’s laws.

   the negation of a disjunction is the conjunction of the negations

3. State the negation of the following statement without using any “not”s:

   The room is available any time between 9am and 5pm except between 1pm
   and 2pm.

   Unclear! Maybe: There is some unavailability
   between 9am and 1pm or between 2pm and 5pm.