1125-03-42   **Maarten McKubre-Jordens*** (`maarten.jordens@canterbury.ac.nz`), University of Canterbury, Private Bag 4800, Christchurch, Canterbury 8140, New Zealand, and **Hannes Diener** and **Louis Warren**. *Classifying Material Implications over Minimal Logic.*

The so-called paradoxes of material implication and omniscience principles have motivated the development of much non-classical mathematics over the years. In this paper, we investigate some of these principles and classify them, over minimal logic. We provide proofs of equivalence and semantic models separating the principles where appropriate. A number of equivalent groups arise, all of which collapse with unrestricted use of double negation elimination. Interestingly, the principle *ex falso quodlibet* and several weaker principles, turn out to be distinct. Moreover, in the first-order analysis it turns out that Markov's principle of unbounded search is *not* minimally derivable from excluded middle alone. This separates the analysis clearly from both the classical and constructive interpretations which validate intuitionistic logic.