Network models have become ubiquitous, raising node centrality from an obscure aspect of social science research to a basic mathematical tool. Yet centrality measures are designed only to identify the most important nodes in a network, and are rarely usefully accurate for the 99% of nodes which are not highly central. After showing how this counter-intuitive result follows directly from the definition of centrality, Dr. Lawyer will present a new approach to measuring node influence. The approach is based on first principles, building on the expected value of the force of infection which would be seen in a spreading process seeded from a given node. The expected force (ExF) measure is highly predictive of epidemic outcomes on a broad range of networks, and gives a framework understanding the nature of influence. The talk will conclude with an application of the ExF to the world airline network.