In the twentieth – twenty-first century, we are likely to think of the ‘sciences’ as various forms of inquiry consisting of gathering empirical evidence regarding nature, using the data gathered toward the formulation of general explanatory theories, conducting experiments to test them, and then formulating new theories from the results. But for the entire medieval period the term ‘science’ had a different and very specific meaning. Science was understood in the Aristotelian sense as the knowledge of syllogistically demonstrated conclusions or, more precisely, as the intellectual habit by which the mind is disposed to assent to conclusions which are true and certain because derived by syllogistically demonstration from principles and causes, within a given domain of real entities.

An Aristotelian ‘demonstrative science’ is a system of sentences, based on principles or ‘foundations’ (sentences or terms) the meaning of which is so obvious as to require no further explanation (‘definitions’) or proof (‘axioms’ and postulates). Any other terms occurring in the system must be definable by means of these terms. Any other sentences belonging to the system must be demonstrable by logical inference starting from the fundamental sentences.

The principles are sentences known immediately (definitions, axioms, postulates) or judgements which are clear after some consideration but without intermediate steps: as assumptions which are obvious to students as they are pointed out. The intellectual assent to the foundations or principles of the system is called ‘insight’ or ‘understanding’ (*intellectus* in Latin, *νοῦς* in Greek). The intellectual assent to the sentences derived by syllogistical inference from the fundamental sentences is called ‘science’ (*scientia* in Latin, *ἐπίστήμη* in Greek).

*Scientia* in the most strict, Aristotelian sense can be had only of the eternal and unchangeable. Theoretical knowledge deals only with the invariable and universal. Of things which one knows certainly one must have the certitude that they are always so and one can only
have that when it cannot be otherwise. That is the type of certitude which Aristotle claims for the logic of demonstration developed in the *Analytica Posteriora* and which is evident in the proofs provided by the mathematical sciences.

For the history of Aristotelianism in the Latin Middle Ages this understanding of science and scientific knowledge was crucial. In the Aristotelian tradition, as it developed in the period before the Renaissance, science did not mean research or discovery, but rather the true and certain knowledge of conclusions derived from principles already known. In Scholasticism the search for the principles of demonstration was neglected, because in philosophy Aristotle was thought to have discovered the ultimate principles of reality and in theology the articles of faith were thought to have supplied the certain principles. Although the *Summae* of the thirteenth century retained the *sic-et-non* format, they can only be correctly understood as the application of Aristotle’s idea of a demonstrative science to the doctrines of the Christian faith. Because the most effective way to teach (*docere*) is to present doctrine as conclusions from first principles, *sacra doctrina* presents theological doctrine as true and certain, being derived from the articles of faith as first principles.

For apologetic reasons scholastic theologians stressed the agreement between the philosophical conclusions of Aristotle and the revealed doctrines of the Christian Church. Although the Christian doctrines cannot be rationally proved, their acceptance can at least be shown to be reasonable because in agreement with basic philosophical conclusions. Aristotle was regarded as the one who had demonstrated basic philosophical truths: e.g. the existence of God, His goodness and providence and the immortality of the human soul.

The formula “science means the certitude of knowledge which is gained by demonstration” – which Thomas Aquinas took, almost literally, from the Arabic philosopher Averroes – sums up the scholastic understanding of speculative science. The formula implies not only that natural philosophy and metaphysics can be presented ‘scientifically’ – as derived from the principles which Aristotle had won. It also means that the *sacra doctrina* of the theologians can be presented in accordance with Aristotle’s theory of science, as derived from the articles of faith. The agreement between the conclusions of philosophy