INTRODUCTORY LOGIC — Glossary of key terms

This glossary includes terms that are defined in the text, in the lesson and on the page noted.

**A statement**  Lesson 13, page 91
A categorical statement of the form *All S is P*, also called a universal affirmative.

**Accent**  Lesson 34, page 265
Changing the meaning of a sentence through improper emphasis. A fallacy of ambiguity.

**Ad baculum**  Lesson 33, page 258
Latin for “to the stick”; an illegitimate appeal to force, usually a thinly-veiled threat. A fallacy of distraction.

**Ad hominem**  Lesson 33, page 259
Latin for “to the man”; a verbal attack on the character of one’s opponent. A fallacy of distraction.

**Ad ignorantiam**  Lesson 33, page 260
Latin for “to ignorance”; an argument from lack of evidence. A fallacy of distraction.

**Ad populum**  Lesson 33, page 258
Latin for “to the people”; an illegitimate appeal to a majority. A fallacy of distraction.

**Affirming the consequent**  Lesson 31, page 229
An invalid mixed hypothetical syllogism of the form *If p then q, q, therefore p*.

**Ambiguous**  Lesson 1, page 10
Having more than one possible meaning.

**Amphiboly**  Lesson 34, page 266
A vagueness of grammar that disguises or alters the meaning. A fallacy of ambiguity.

**Antecedent**  Lesson 31, page 228
In a hypothetical statement *if p then q*, the antecedent is the statement represented by the *p*.

**Apparent disagreement**  Lesson 10, page 77
A difference of opinion or perception.
Apriorism Lesson 35, page 273
A hasty generalization. A fallacy of form.

Argument Lesson 19, page 141
A set of statements, one of which appears to be implied or supported by the others.

Bulverism Lesson 33, page 259
Attacking a position by pointing out how the arguer came to hold it. A fallacy of distraction.

Categorical logic Introduction, page 6
A branch of deductive logic that deals with categorical syllogisms, in which the basic unit of thought is the category or term.

Categorical statement Lesson 12, page 85
A statement that affirms or denies something about a given subject. A categorical statement connects a subject and a predicate, and has both quantity and quality.

Categorical syllogism Lesson 20, page 145
A syllogism with each statement in categorical form.

Chronological snobbery Lesson 33, page 260
To reject or affirm a position based merely on the passage of time. A fallacy of distraction.

Circular reasoning Lesson 35, page 271
Secretly assuming in a premise what is to be proven in the conclusion. A fallacy of form.

Complement Lesson 27, page 197
The negation of a term; the complement of $P$ is $\neg P$, and vice versa.

Complex question Lesson 35, page 272
A question crafted to exclude a legitimate response, also called a “loaded question.” A fallacy of form.

Composition Lesson 34, page 266
Arguing that what is true of each of the individual parts must be true of the thing as a whole. A fallacy of ambiguity.

Conclusion Lesson 19, page 141
The statement in an argument that appears to be implied or supported by the others.
**Consequent** Lesson 31, page 228
In a hypothetical statement *if p then q*, the consequent is the statement represented by the *q*.

**Consistent** Lesson 9, page 69
Statements are consistent if they can be true at the same time.

**Contradiction** Lesson 14, page 95
The relationship between A and O statements, or E and I statements, on the square of opposition. Two statements contradict if and only if they have opposite truth values.

**Contrapositive** Lesson 27, page 198
The contrapositive of a statement switches the subject and predicate, and changes both to their complements. Contrapositive is valid for A and O statements.

**Contrariety** Lesson 15, page 101
The relationship between A and E statements on the square of opposition. Contrary statements can both be false but cannot both be true.

**Converse** Lesson 27, page 197
The converse of a statement switches the subject and predicate of the statement. Converse is valid for E and I statements.

**Counterexample** Lesson 24, page 163
A syllogism that shows another syllogism to be invalid, by substituting terms to make the premises true and the conclusion false.

**Deduction** Introduction, page 5
Formal logic that deals with reasoning from premises to conclusions, conclusions that are either valid or invalid.

**Definition** Lesson 1, page 9
A statement that gives the meaning of a term.

**Denying the antecedent** Lesson 31, page 230
An invalid mixed hypothetical syllogism of the form *If p then q, not p, therefore not q*.

**Distributed** Lesson 25, page 169
A term is distributed when it refers to all members of its category (that is, its entire extension). The subject of universal statements and the predicates of negative statements are distributed.
Division Lesson 34, page 267
Arguing that what is true of the thing as a whole must be true of any individual part. A fallacy of ambiguity.

E statement Lesson 13, page 91
A categorical statement of the form No S is P, also called a universal negative.

Either/or Lesson 35, page 272
An argument that oversimplifies the choices. Also called “bifurcation.” A fallacy of form.

Enthymeme Lesson 30, page 219
A syllogism in which one statement is left assumed.

Equivocation Lesson 34, page 265
Changing the meaning of a term in the middle of an argument. A fallacy of ambiguity.

Exclusive Lesson 29, page 213
A word in a statement that set boundaries, referring only to a limited class of things, such as only, unless, and except.

Extension Lesson 3, page 21
The extension of a term is the sum of all the individual things described by the term.

Fallacy of ambiguity Lesson 34, page 265
An informal fallacy that confuses the issue through unclear meanings.

Fallacy of distraction Lesson 33, page 257
An informal fallacy that confuses the issue by pointing to information that is irrelevant to the conclusion.

Fallacy of form Lesson 35, page 271
An informal fallacy that fails to establish the conclusion due to a weakness in logical structure.

Figure Lesson 22, page 153
The figure of a syllogism is a number (from 1 to 4) identifying the placement of its middle term.

Form Lesson 22, page 154
The form of a syllogism is the mood and figure of a syllogism (see Appendix B).
Formal logic
Logic that deals directly with reasoning by means of logical arguments.

Genus
A term that is more general, broad, or abstract than the original term and includes it.

Genus and difference
A method of defining a term by providing the genus of the term along with descriptive words that distinguish that term from every other species under that genus.

Genus and species hierarchy
A chart that shows the relationships between the genera and species of a set of terms.

Hypothetical statement
A statement of the form If p then q.

Hypothetical syllogism
A syllogism that uses at least one hypothetical statement.

I statement
A categorical statement of the form Some S is P, also called a particular affirmative.

Illicit major
A fallacy in which the major term is distributed in the conclusion but not in the premise.

Illicit minor
A fallacy in which the minor term is distributed in the conclusion but not in the premise.

Immediate inference
A statement that can be inferred directly from another statement. Equivalent immediate inferences include converse, obverse, and contrapositive.

Implication
Two statements are related by implication if the truth of one requires the truth of the other.

Inclusive
A word in a statement, often a relative pronoun or adverb, that refers to a broad range of things or times, such as whoever, whatever, wherever, whenever, however, always, and never.
**Inconsistent**  
Lesson 9, page 69  
Statements are inconsistent if they cannot be true at the same time.

**Indefinite statement**  
Lesson 28, page 206  
A statement in which the subject not explicitly distributed.

**Independent**  
Lesson 9, page 71  
Two statements are independent if the truth value of one has no effect on the truth value of the other.

**Induction**  
Introduction, page 5  
Formal logic that deals with reasoning from examples or experience to probable conclusions. Inductive conclusions are either strong or weak.

**Informal fallacy**  
Lesson 33, page 257  
A popular but invalid (or unhelpful) form of argument.

**Informal logic**  
Introduction, page 5  
Logic that deals with operations of thinking that are indirectly related to reasoning, and support the process of reasoning, such as defining terms and determining the truth of statements.

**Intension**  
Lesson 3, page 21  
The intension of a term is the sum of all the common attributes denoted by the term.

**Invalid**  
Lesson 23, page 159  
In an invalid argument, it is possible for the premises to be true and the conclusion false.

**Ipse dixit**  
Lesson 33, page 258  
Latin for “he has said it himself”; an illegitimate appeal to authority. A fallacy of distraction.

**Law of Excluded Middle**  
Introduction, page 3  
A statement is either true or false.

**Law of Identity**  
Introduction, page 4  
If a statement is true, then it is true.

**Law of Noncontradiction**  
Introduction, page 4  
A statement cannot be both true and false.
Lexical definition Lesson 1, page 10
A definition that provides a single, established meaning of a term.

Logic Introduction, page 1
The science and art of reasoning well.

Logically equivalent Lesson 9, page 70
Two statements are logically equivalent if they imply one another. Equivalent statements have the same truth value.

Major premise Lesson 20, page 146
The premise in a syllogism that contains the major term.

Major term Lesson 20, page 145
The predicate of the conclusion of a syllogism.

Middle term Lesson 20, page 145
The term that is found once in each premise in a syllogism.

Minor premise Lesson 20, page 146
The premise in a syllogism that contains the minor term.

Minor term Lesson 20, page 145
The subject of the conclusion of a syllogism.

Mixed hypothetical syllogism Lesson 31, page 228
An argument that uses both hypothetical statements and non-hypothetical statements.

Modus ponens Lesson 31, page 228
A valid mixed hypothetical syllogism of the form If p then q, p, therefore q.

Modus tollens Lesson 31, page 229
A valid mixed hypothetical syllogism of the form If p then q, not q, therefore not p.

Mood Lesson 21, page 151
The mood of a syllogism is a three-letter description stating the types of categorical statements it contains when arranged in standard order.
**Negative premise and affirmative conclusion**  Lesson 26, page 176
A fallacy in which at least one premise of a syllogism is negative, and the conclusion is affirmative.

**Non sequitur**  Lesson 31, page 230
Latin for “It does not follow”; an invalid argument.

**O statement**  Lesson 13, page 92
A categorical statement of the form *Some S is not P*, also called a particular negative.

**Obverse**  Lesson 27, page 197
The obverse of a statement changes the quality of the statement and changes the predicate to its complement. Obverse is valid for all statements.

**Particular affirmative**  Lesson 12, page 86
A categorical statement of the form *Some S is P*, also called an I statement.

**Particular negative**  Lesson 12, page 86
A categorical statement of the form *Some S is not P*, also called an O statement.

**Persuasive definition**  Lesson 1, page 11
A definition intended to influence the attitudes and emotions of an audience toward the term.

**Post hoc ergo propter hoc**  Lesson 35, page 272
Latin for “after this, therefore because of this”; improperly assuming that a sequence in time implies a cause and effect. Also called a “false cause.” A fallacy of form.

**Precising definition**  Lesson 1, page 10
A definition that reduces the vagueness of a term in a particular situation.

**Premise**  Lesson 19, page 141
A statement in an argument meant to imply or support the conclusion.

**Propositional logic**  Introduction, page 6
A branch of deductive logic in which the basic unit of thought is the proposition.

**Pure hypothetical syllogism**  Lesson 31, page 227
An argument that uses only hypothetical statements.
**Quality**  Lesson 12, page 86
The quality of a statement is the affirmative or negative nature of its claim about the subject: affirmative (asserts something) or negative (denies something).

**Quantity**  Lesson 12, page 86
The quantity of a statement is the scope of the claim about the extension of the subject: universal (entire extension) or particular (partial extension).

**Real disagreement**  Lesson 10, page 77
An actual inconsistency between two statements: they cannot both be true at the same time.

**Reasoning**  Introduction, page 1
Drawing proper conclusions from other information.

**Schema**  Lesson 21, page 151
A schema is a representation of a syllogism, having statements in standard order with standard abbreviations of all of its terms: S for the minor term, P for the major term, M for the middle term.

**Self-contradiction**  Lesson 7, page 62
A statement that is false by logical structure.

**Self-report**  Lesson 7, page 61
A statement by a person referring to his or her own desires, beliefs, or feelings.

**Self-supporting statement**  Lesson 7, page 61
A statement with a truth value that can be determined from the statement itself, such as a self-report, a statement that is true or false by logical structure, or a statement that is true or false by definition.

**Singular statement**  Lesson 28, page 206
A statement that refers to a single person or thing.

**Sound**  Lesson 23, page 160
A sound argument is valid and has true premises and a true conclusion.

**Species**  Lesson 2, page 15
A term that is more specific, narrow, or concrete than the original term and is included by it; a type, kind, or example of the term.
Square of opposition  Lesson 13, page 91
A diagram of the basic relationships between categorical statements that have the same subject and predicate (see Appendix A).

Statement  Lesson 6, page 57
A sentence that is either true or false.

Stipulative definition  Lesson 1, page 10
A definition for a new word, or for an existing word applied in a new way.

Subcontrariety  Lesson 16, page 105
The relationship between I and O statements on the square of opposition. Subcontrary statements can both be true but cannot both be false.

Subimplication  Lesson 17, page 109
The relationship from an A to an I statement, or from an E to an O statement, on the square of opposition. In subimplication, if the universal statement is true then the particular statement of the same quality must be true.

Superimplication  Lesson 18, page 111
The relationship from an I to an A statement, or from an O to an E statement, on the square of opposition. In superimplication, if the particular statement is false then the universal statement of the same quality must be false.

Supported statement  Lesson 8, page 65
A statement with a truth value that depends on evidence or information from outside of the statement itself.

Syllogism  Lesson 20, page 145
A deductive argument with two premises and three terms: major, minor, and middle.

Tautology  Lesson 7, page 61
A statement that is true by logical structure.

Term  Lesson 1, page 9
A concept that is expressed precisely in words.

Theoretical definition  Lesson 1, page 11
A definition that provides a theoretical (e.g. scientific or philosophical) meaning of a term.
**Truth value**  
Lesson 6, page 57  
Truth or falsity of a statement.

**Tu quoque**  
Lesson 33, page 260  
Latin for “you also”; verbally defending oneself by pointing to an inconsistency between an opponent’s argument and his behavior. A fallacy of distraction.

**Two affirmative premises and a negative conclusion**  
Lesson 26, page 176  
A fallacy in which both premises of a syllogism are affirmative, and the conclusion is negative.

**Two negative premises**  
Lesson 26, page 175  
A fallacy in which both premises in a syllogism are negative.

**Undistributed middle**  
Lesson 26, page 174  
A fallacy in which the middle term is not distributed in either premise.

**Universal affirmative**  
Lesson 12, page 86  
A categorical statement of the form *All S is P*, also called an A statement.

**Universal negative**  
Lesson 12, page 86  
A categorical statement of the form *No S is P*, also called an E statement.

**Vague**  
Lesson 1, page 10  
Unclear in extent.

**Valid**  
Lesson 23, page 159  
A syllogism is valid if and only if the premises imply the conclusion.

**Validity**  
Lesson 23, page 159  
The condition of an argument, valid or invalid, depending on the form of the argument.

**Verbal disagreement**  
Lesson 10, page 77  
A misunderstanding due to differing definitions for one or more words.