Here are some examples of common fallacies:

**ad hominem**

A theory is discarded not because of any evidence against it or lack of evidence for it, but because of the person who argues for it. Example:
A: The Government should enact minimum-wage legislation so that workers are not exploited.
B: Nonsense. You say that only because you cannot find a good job.

**ad ignorantiam (appeal to ignorance)**

The truth of a claim is established only on the basis of lack of evidence against it. A simple obvious example of such fallacy is to argue that unicorns exist because there is no evidence against such a claim. At first sight it seems that many theories that we describe as scientific involve such a fallacy. E.g. the first law of thermodynamics holds because so far there has not been any negative instance that would serve as evidence against it. But notice, as in cases like this, there is evidence for the law, namely positive instances. Notice also that this fallacy does not apply to situations where there are only two rival claims and one has already been falsified, then we may justly establish the truth of the other even if we cannot find evidence for or against it.

**ad misericordiam (appeal to pity)**

In offering an argument, pity is appealed to. Usually this happens when people argue for special treatment on the basis of their need. E.g. a student argues that the teacher should let him/her pass the examination because he/she needs it in order to graduate. Of course, pity might be a relevant consideration in certain conditions, as in contexts involving charity.

**ad populum (appeal to popularity)**

The truth of a claim is established only on the basis of its popularity and familiarity. This is the fallacy committed by many commercials. Surely you have heard of commercials implying that we should buy a certain product because it has made to the top of a sales rank, or because the brand is the city's "favourite".

**Affirming the consequent**

Inferring that P is true solely because Q is true and it is also true that if P is true, Q is true. The problem with this type of reasoning is that it ignores the possibility that there are other conditions apart from P that might lead to Q. For example, if there is a traffic jam, a colleague...
may be late for work. But if we argue from his being late to there being a traffic jam, we are guilty of this fallacy - the colleague may be late due to a faulty alarm clock.

Of course, if we have evidence showing that P is the only or most likely condition that leads to Q, then we can infer that P is likely to be true without committing a fallacy.

Begging the question (petito principii)

In arguing for a claim, the claim itself is already assumed in the premise. Example: "God exists because this is what the Bible says, and the Bible is reliable because it is the word of God."

Complex question or loaded question

A question is posed in such a way that a person, no matter what answer he/she gives to the question, will inevitably commit him/herself to some other claim, which should not be presupposed in the context in question. A common tactic is to ask a yes-no question that tricks people to agree to something they never intended to say. For example, if you are asked "Are you still as self-centred as you used to be?", then no matter you answer "yes" or "no", you are bound to admit that you were self-centred in the past. Of course, the same question would not count as a fallacy if the presupposition of the question is indeed accepted in the conversational context.

Composition (opposite of division)

The whole is assumed to have the same properties as its parts. Anne might be humorous and fun-loving and an excellent person to invite to the party. The same might be true of Ben, Chris and David considered individually. But it does not follow that it will be a good idea to invite all of them to the party. Perhaps they hate each other and the party will be ruined.

Denying the antecedent

Inferring that Q is false just because if P is true, Q is also true, but P is false. This fallacy is similar to the fallacy of affirming the consequent. Again the problem is that some alternative explanation or cause might be overlooked. Although P is false, some other condition might be sufficient to make Q true.

Example: If there is a traffic jam, a colleague may be late for work. But it is not right to argue in the light of a smooth traffic that the colleague will not be late. Again, his alarm clock may have stopped working.

Division (opposite of composition)

Jonathan Chan
The parts of a whole is assumed to have the same properties of the whole. It is possible that, on a whole, a company is very effective, while some of its departments are not. It would be inappropriate to assume they all are.

Equivocation

Putting forward an argument where a word changes meaning without having it pointed out. For example, some philosophers argue that all acts are selfish. Even if you strive to serve others, you are still acting selfishly because your act is just to satisfy your desire to serve others. But surely the word "selfish" means differently in the premise and the conclusion - when we say a person is selfish we usually mean that he does not strive to serve others. To say that a person is selfish because he is doing something he wants, even when what he wants is to help others, is to use the term "selfish" with a different meaning.

False dilemma

Presenting a limited set of alternatives when there are others that are worth considering in the context. Example: "Every person is either my enemy or my friend. If he/she is my enemy I should hate him/her. If he/she is my friend I should love him/her. So I should either love him/her or hate him/her." Obviously, the conclusion is too extreme because most people are neither your enemy nor your friend.

Gambler's fallacy

Assumption is made to take some independent statistics as dependent. The untrained mind tends to think that, e.g. if a fair coin is tossed five times and the results are all heads, then the next toss will more likely be a tail. It will not be, however. If the coin is fair, the result for each toss is completely independent of the others. Notice the fallacy hinges on the fact that the final result is not known. Had the final result been known already, the statistics would have been dependent.

Genetic fallacy

Thinking that because X derives from Y, and Y has a certain property, X must have the same property also. Example: "His father is a criminal, so he must also be up to no good."

Non sequitur

A conclusion is drawn which does not follow from the premise. This is not a specific fallacy but a very general term for a bad argument. So a lot of the examples above and below can be said to be non sequitur.
Petito principii

Latin word for question begging.

Post hoc, ergo propter hoc (literally, "after this, therefore because of this")

Inferring that X must be the cause of Y just because X is followed by Y.
For example, having visited a graveyard, I fell ill and infer that graveyards are spooky places that cause illnesses. Of course, this inference is not warranted since this might just be a coincidence. However, a lot of superstituous beliefs commit this fallacy.

Red herring

Within an argument some irrelevant issue is raised which diverts attention from the main subject. The function of the red herring is sometimes to help express a strong, biased opinion. The red herring (the irrelevant issue) serves to increase the force of the argument in a very misleading manner.
For example, in a debate as to whether God exists, someone might argue that believing in God gives peace and meaning to many people's lives. This would be an example of a red herring since whether religions can have a positive effect on people is irrelevant to the question of the existence of God. The good psychological effect of a belief is not a reason for thinking that the belief is true.

Slippery slope

Arguing that if an opponent were to accept some claim C1, then he or she has to accept some other closely related claim C2, which in turn commits the opponent to a still further claim C3, eventually leading to the conclusion that the opponent is committed to something absurd or obviously unacceptable.
This style of argumentation constitutes a fallacy only when it is inappropriate to think if one were to accept the initial claim, one must accept all the other claims.

An example: "The government should not prohibit drugs. Otherwise the government should also ban alcohol or cigarettes. And then fatty food and junk food would have to be regulated too. The next thing you know, the government would force us to brush our teeth and do exercises everyday."

Straw man
Attacking an opponent by attributing to him/her an implausible position that is easily defeated when this is not actually the opponent's position.

Example: When many people argue for more democracy in Hong Kong, a typical reply is to say that this is not warranted because it is wrong to think that democracy is the solution to all of Hong Kong's problems, or to say that one should not blindly accept democracy. But those who support democracy never suggest that democracy can solve all problems (e.g. pollution), and they might also agree that blindly accepting something is rarely correct, whether it is democracy or not. Those criticisms attack implausible "strawman" positions and do not address the real arguments for democracy.

Suppressed evidence

Where there is contradicting evidence, only confirming evidence is presented.