Types of Fallacies

Argumentum ad baculum / Appeal to Force
The Appeal to Force is committed when the arguer resorts to force or the threat of force in order to try and push the acceptance of a conclusion. It is often used by politicians, and can be summarized as "might makes right". The force threatened need not be a direct threat from the arguer.

*For example:*  
"Hitler's war is just and any who disagree will be tortured by the Gestapo"

Argumentum ad hominem
Argumentum ad Hominem is literally "argument directed at the man". The Abusive variety of Argumentum ad Hominem occurs when, instead of trying to disprove the truth of an assertion, the arguer attacks the person or people making the assertion. This is invalid because the truth of an assertion does not depend upon the goodness of those asserting it.

*For example:*  
"The negative team's arguments are wrong because they are patriarchal males"

Argumentum ad ignorantiam
Argumentum ad ignorantiam means "argument from ignorance". This fallacy occurs whenever it is argued that something must be true simply because it has not been proved false. Or, equivalently, when it is argued that something must be false because it has not been proved true. (Note that this is not the same as assuming that something is false until it has been proved true, a basic scientific principle.)

*Examples:*  
"Of course Elvis is alive. Nobody can prove otherwise."

Argumentum ad misericordiam
This is the Appeal to Pity, also known as Special Pleading. The fallacy is committed when the arguer appeals to pity for the sake of getting a conclusion accepted.

*For example:*  
"I did not murder my mother and father with an axe. Please don't find me guilty; I'm suffering enough through being an orphan."

Argumentum ad populum
This is known as Appealing to the Gallery, or Appealing to the People. To commit this fallacy is to attempt to win acceptance of an assertion by appealing to a large group of people. This form of fallacy is often characterized by emotive language.

*For example:*  
"Pornography must be banned. It is violence against women."

Argumentum ad numerum
This fallacy is closely related to the argumentum ad populum. It consists of asserting that the more people who support or believe a proposition, the more likely it is that that proposition is correct.

*For example:*  
*Everyone in the school hates the dress code policy, therefore, it is a bad policy."

Argumentum ad verecundiam
The Appeal to Authority uses the admiration of the famous to try and win support for an assertion.

*For example:*  
"Mal Meninga was a great footballer. He is saying that you should buy this car, therefore you should."

This line of argument is not always completely bogus; for example, reference to an admitted authority in a particular field may be relevant to a discussion of that subject. For example, we can distinguish quite clearly between:

"Hawking has concluded that black holes give off radiation"  
and  
"Penrose has concluded that it is impossible to build an intelligent computer"

Hawking is a physicist, and so we can reasonably expect his opinions on black hole radiation to be informed. Penrose is a mathematician, so it is questionable whether he is well-qualified to speak on the subject of machine intelligence.

The fallacy of accident
The Fallacy of Accident is committed when a general rule is applied to a particular case whose "accidental" circumstances mean that the rule is inapplicable. It is the error made when one goes from the general to the specific.

*For example:*  
"Christians generally dislike atheists. You are a Christian, so you must dislike atheists."
Converse accident / Hasty generalization
This fallacy is the reverse of the Fallacy of Accident. It occurs when one forms a general rule by examining only a few specific cases which are not representative of all possible cases.
For example:
"Richard Nixon was a dishonest President therefore all presidents are dishonest"

Non causa pro causa / Post hoc ergo propter hoc
These are known as False Cause fallacies. The fallacy of Non Causa Pro Causa occurs when one identifies something as the cause of an event but it has not actually been shown to be the cause.
For example:
"I took an aspirin and meditated, and my headache disappeared. Therefore meditation cured my headache"
The fallacy of Post Hoc Ergo Propter Hoc occurs when something is assumed to be the cause of an event merely because it happened before the event.
For example:
"The Great Depression occurred after the rise of Communism. Therefore we must avoid Communism for the same reasons."

Petitio principii / Begging the question
This fallacy occurs when the premises are at least as questionable as the conclusion reached.
For example:
"Teachers don't care about the students, therefore the students poor grades are the teachers' fault."

Circulus in demonstrando
This fallacy occurs when one assumes as a premise the conclusion which one wishes to reach. Often, the proposition will be rephrased so that the fallacy appears to be a valid argument.
For example:
"Communists must not be allowed to hold government office. Hence any government official who is revealed to be a Communist will lose his job. Therefore Communists will do anything to hide their secret, and will be open to blackmail. Therefore Communists cannot be allowed to hold government office."
Note that the argument is entirely circular; the premise is the same as the conclusion.

Ignoratio elenchi / Fallacy of Irrelevant Conclusion
The fallacy of Irrelevant Conclusion consists of claiming that an argument supports a particular conclusion when it is actually logically nothing to do with that conclusion.
Sadly, such fallacious arguments are often successful because they arouse emotions which cause others to view the supposed conclusion in a more favorable light.
For example:
"I didn't get a job working at that restaurant because those male managers only want to hire young girls to be waitresses."

Amphiboly
Amphiboly occurs when the premises used in an argument are ambiguous because of careless or ungrammatical phrasing.
For example:
The doctor is right about the saying Bill should be allowed to die because he is an expert. (He refers to Bill here when it should refer to the doctor. Duh.)

Accent
Accent is another form of fallacy through shifting meaning. In this case, the meaning is changed by altering which parts of a statement are emphasized.
For example:
The doctor said that, if it weren't for the fact that Nathan is an idiot, I'd probably say I agree with Nathan.
Out of context: The doctor said he agreed with Nathan.

Fallacies of composition
One Fallacy of Composition is to conclude that a property shared by the parts of something must apply to the whole.
For example:
"The bicycle is made entirely of low mass components, and is therefore very lightweight."
The other Fallacy of Composition is to conclude that a property of a number of individual items is shared by a collection of those items.
For example:
"A car uses less petrol and causes less pollution than a bus. Therefore cars are less environmentally damaging than buses."
Fallacy of division
The fallacy of division is the opposite of the Fallacy of Composition. Like its opposite, it exists in two varieties. The first is to assume that a property of something must apply to its parts.

For example:
"You are studying at a rich college. Therefore you must be rich."
The other is to assume that a property of a collection of items is shared by each item.

For example:
"Ants can destroy a tree. Therefore this ant can destroy a tree."

The slippery slope argument
This argument states that should one event occur, so will other harmful events. There is no proof made that the harmful events are caused by the first event.

For example: "If we legalize marijuana, then we would have to legalize crack and heroin and we'll have a nation full of drug-addicts on welfare. Therefore we cannot legalize marijuana."

"A is based on B" fallacies / ".is a type of..." fallacies / Fallacy of the Undistributed Middle
These fallacies occur when one attempts to argue that things are in some way similar without actually specifying in what way they are similar.

Examples:
"Cats are a form of animal based on carbon chemistry, dogs are a form of animal based on carbon chemistry, so aren't dogs a form of cat?"

Converting a conditional
This fallacy is an argument of the form "If A then B, therefore if B then A".

For example:
The school suspended me because I ditch school, therefore when I ditch school again the school will suspend me. (Wrong! They might expel you this time.)

Argumentum ad antiquitatem
This is the fallacy of asserting that something is right or good simply because it is old, or because “that’s the way it’s always been.”

For example:
My dad said he never had to do this kind of assignment when he was in school, so I shouldn’t have to do it either.

Argumentum ad novitatem
This is the opposite of the Argumentum ad Antiquitatem; it is the fallacy of asserting that something is more correct simply because it is new or newer than something else.

For example:
If it’s too loud, you’re too old!

Argumentum ad crumenam
The fallacy of believing that money is a criterion of correctness; that those with more money are more likely to be right.

For example:
To implement that program would cost too much, therefore it is a bad program.

Argumentum ad lazarum
The fallacy of assuming that because someone is poor he or she is sounder or more virtuous than one who is wealthier. This fallacy is the opposite of the argumentum ad crumenam.

For example:
Maybe if your mind wasn’t warped by your sense of greed, you could see how this hobo over here knows more about life than you.

Argumentum ad nauseam
This is the incorrect belief that an assertion is more likely to be true the more often it is heard. An "argumentum ad nauseam" is one that employs constant repetition in asserting something.

For example:
It is so wrong of you not to allow me to go out tonight, mom. I should be allowed to go out and you shouldn’t be telling me that I shouldn’t be allowed to go out. I can’t even believe how wrong it is! I’m amazed by its wrongness and I have a profound feeling that I have been wronged by your wrong judgment against me.

Bifurcation
Also referred to as the "black and white" fallacy, bifurcation occurs when one presents a situation as having only two alternatives, where in fact other alternatives exist or can exist.
Either you do your homework and go to heaven, or you don’t do your homework and you’ll be condemned to the lowest level of a fiery hell where you will be prodded mercilessly with pitchforks by Satan’s minions.

**Plurium interrogationum / Many questions**
This fallacy occurs when a questioner demands a simple answer to a complex question.

*For example:*
Just answer me this one simple question if you think we should outlaw private ownership of guns: Are people good or evil?

**Non sequitur**
A non-sequitur is an argument where the conclusion is drawn from premises which are not logically connected with it.

*For example:*
I concluded that the woman did not like me, based on the fact that she ate an incredible quantity of junk food.

**Red herring**
This fallacy is committed when irrelevant material is introduced to the issue being discussed, so that everyone's attention is diverted away from the points being made, towards a different conclusion.

*For example:*
“Johnny, you didn’t answer my question.”
“Well, Barney ditched school yesterday!”

**Reification / Hypostatization**
Reification occurs when an abstract concept is treated as a concrete thing.

*For example:*
There is one thing that makes the death penalty okay: the right of each victim to have justice.

**Shifting the burden of proof**
The burden of proof is always on the person making an assertion or proposition. Shifting the burden of proof, a special case of Argumentum ad Ignorantiam, is the fallacy of putting the burden of proof on the person who denies or questions the assertion being made. The source of the fallacy is the assumption that something is true unless proven otherwise.

*For example:*
Well, I’ve never heard of any instances of professional wrestling being faked, have you? It must be real then.

**Straw man**
The straw man fallacy is to misrepresent someone else's position so that it can be attacked more easily, then to knock down that misrepresented position, then to conclude that the original position has been demolished. It is a fallacy because it fails to deal with the actual arguments that have been made.

*For example:*
Okay, this is your opinion on the dress code: “I’m an idiot. I think everyone in the world should be in jail for wearing the wrong color socks. Cane them in front of the school!” Now don’t you think that position is a bit ridiculous?

**The extended analogy**
The fallacy of the Extended Analogy often occurs when some suggested general rule is being argued over. The fallacy is to assume that mentioning two different situations, in an argument about a general rule, constitutes a claim that those situations are analogous to each other.

*This fallacy is best explained using an example from a debate about ditching school:*
"I believe it is always wrong to oppose the law by breaking it."
"Such a position is odious: it implies that you would not have supported Martin Luther King."
"Are you saying that ditching school is as important as the struggle for Black liberation? How dare you!"

**Tu quoque**
This is the famous "you too" fallacy. It occurs when an action is argued to be acceptable because the other party has performed it.

*For instance:*
"You're just being randomly abusive."
"So? You've been abusive too."
This is a personal attack, and is therefore a special case of Argumentum ad Hominem.