Fallacies of Logic:

1) Begging the question: (Circular Reasoning)
   a. Assuming as true the very claim that is disputed, in a circular argument; A fallacy in which the premise of an argument presupposes the truth of its conclusion; in other words, the argument takes for granted what it is supposed to prove.
      i. **Example:** I can’t be guilty of embezzlement; I’m an honest person.
      ii. **Example:** You can’t give me a C; I’m an A student.
      iii. "Here is an example [of begging the question] taken from an article on exclusive men's clubs in San Francisco. In explaining why these clubs have such long waiting lists, Paul B. 'Red' Fay, Jr. (on the roster of three of the clubs) said, 'The reason there's such a big demand is because everyone wants to get in them.' In other words, there is a big demand because there is a big demand."

2) Faulty Analogy
   a. Drawing an analogy that is based upon faulty equations or identifications of terms.
      i. **Example:** It has been scientifically proven that people need to drink a certain amount of water every day to keep healthy. Water is a liquid and so is beer. Therefore people should be able to substitute beer for water, drinking as much beer each day as doctors recommend people drink water, in order to keep healthy.
      ii. **Example:** Students in Kindergarten at Jefferson Elementary School did better when given milk and cookies in class than when not; therefore students
at UWEC will do better too if they are given milk and cookies in class.

b. This is a very common fallacy, but "False Analogy", its common name, is very misleading. Analogies are neither true nor false, instead they come in degrees from near identity to extreme dissimilarity. Here are two important points about analogy:

No analogy is perfect, that is, there is always some difference between analogs. Otherwise, they would not be two analogous objects, but only one, and the relation would be one of identity, not analogy.

There is always some similarity between any two objects, no matter how different. For example, Lewis Carroll once posed the following nonsense riddle:

i. How is a raven like a writing desk? Because Poe wrote on both.

The point of the riddle was that they're not alike, that is. However, to Carroll's surprise, some of his readers came up with clever solutions to the supposedly unsolvable riddle, for instance:

ii. “education is like cake; a small amount tastes sweet, but eat too much and your teeth will rot out. Likewise, more than two years of education is bad for a student.”

The analogy is only acceptable to the degree a reader thinks that education is similar to cake.

iii. As you can see, faulty analogies are like flimsy wood, and just as no carpenter would build a house out of flimsy wood, no writer should ever construct an argument out of flimsy material.
3) Personal attack/ad hominem:

a. Attacking the character of a person rather than engaging with the claim, reasons, and evidence she or he is setting forth.

Example: In listening to what you have to say I have this to say in reply: only an idiot would argue for pursuing a peaceful solution to this conflict.

Example: Here’s what I think about what you have written: anyone who opposes the death penalty for murder is a criminal at heart.

4) Sweeping generalization:

a. Drawing a conclusion, especially a sweeping one, from insufficient evidence.
   i. Example: I knew a gay guy once who was not very masculine; this just goes to show that gay guys are more effeminate than straight men.
   ii. Example: A black family moved into my neighborhood once, and they were financially quite well-off, better than we were; this proves that black people actually are economically equal to whites.

5) False dilemma/Either or fallacy: (the Black-and-White Fallacy)
   a. Either/Or Choices

To reduce complicated questions, which can be effectively answered in multiple different ways, to only two, diametrically opposed, possible answers.

Example: Either you support the President in everything he says and does or you are not a patriotic American.

Example: Either you worship God or you worship Satan.
6) Equivocation: (fallacy of ambiguity)

a. Using a term with different meanings in the same argument; A fallacy by which a key word or phrase in an argument is used with more than one meaning.
   i. “Plato says the end of a thing is its perfection; I say that death is the end of life; hence, death is the perfection of life.” Here the word *end* means "goal" in Plato's usage, but it means "last event" or "termination" in the author's second usage. Clearly, the speaker is twisting Plato's meaning of the word to draw a very different conclusion.
   ii. "Equivocation is a common fallacy because it often is quite hard to notice that a shift in meaning has taken place. . . . The sugar industry, for instance, once advertised its product with the claim that "Sugar is an essential component of the body . . . a key material in all sorts of metabolic processes," neglecting the fact that it is glucose (blood sugar) not ordinary table sugar (sucrose) that is the vital nourishment." (Howard Kahane and Nancy Cavender, *Logic and Contemporary Rhetoric*. Wadsworth, 1998)

b. An argument that gives a lie an honest appearance, by insisting on what is only partially or formally true.
   i. Example: I did not have sex with that woman (if by sex you mean penile-vaginal intercourse). [From Bill Clinton, in relation to the nature of his relationship with Monica Lewinsky]
   ii. Example: I gave you everything I had to give you (right then and there when you asked me, but not of course everything I could have given you if I took into account what I maintain elsewhere).
7) Red Herring: (Irrelevant Conclusion)

a. Drawing attention away from the issue at hand by focusing on an irrelevant issue as a substitute for making a case.

i. *Example:* You can’t trust Jim to do a good job as student body president; he doesn’t dress with an up-to-date sense of style.

*Example:* I don’t support the President’s foreign policy; look at the disastrous way he has taken care of our domestic economy.

8) You Also/Tu Quoque:

a. A type of *ad hominem argument* in which a person turns a charge back on his or her accuser: a logical *fallacy*.

i. "Recently, we highlighted a British journalist’s story about the underside of Dubai’s startling ascent. Some in Dubai called foul, including one writer who wants to remind Britons that their own country has a dark side. After all, what to think of a country in which one fifth of the population lives in poverty?" ("Dubai’s Rebuttal," *The New York Times*, April 15, 2009)

ii. "Of all human instincts, not even the urge to say 'I told you so' is stronger than the response called tu quoque: 'Look who's talking.' To judge from children, it is innate ('Cathy says you took her chocolate,' 'Yes but she stole my doll'), and we don't grow out of it."
9) Appeal to doubtful authority:

a. Suggesting that you should listen and follow what someone has to say about something that he or she is in fact not a credible, reliable authority on; A fallacy in which a rhetor seeks to persuade an audience not by giving evidence but by appealing to the respect people have for the famous.

Example: My friend, who is serving in the infantry in Iraq, tells me that the government has a secret plan for how to win the War that they won’t release until after the election, and because he is my friend and I like and respect him, this must be true.

Example: Britney Spears says that George W. Bush has got a great plan for the economy, and so therefore I am supporting him because I trust what she has to say.

b. "Another common fallacy is the appeal to authority, which consists of arguing a point by invoking the opinion of an expert. However, experts may be wrong, they may be expressing an opinion outside their area of expertise or they may have been incapacitated or joking when making the point. It is the expert's reasons that are valuable, not the fact that they were announced by an expert."

10) Misleading statistics: (type of hasty generalization)

a. A fallacy in which anecdotal evidence (or a single vivid image, report, or experience) is offered as proof—in particular, when a small number of dramatic events are allowed to outweigh a significant amount of statistical evidence that supports an opposing view.

i. "Of course violent crime is up in our schools. [D]on't you remember hearing about the awful shooting in that school last month?"
(Example of misleading vividness from Handbook of
ii. Another common example of this fallacy is the misleading statistic. Suppose an individual argues that women must be incompetent drivers, and he points out that last Tuesday at the Department of Motor Vehicles, 50% of the women who took the driving test failed. That would seem to be compelling evidence from the way the statistic is set forth. However, if only two women took the test that day, the results would be far less clear-cut. Incidentally, the cartoon *Dilbert* makes much of an incompetent manager who cannot perceive misleading statistics. He does a statistical study of when employees call in sick and cannot come to work during the five-day work week. He becomes furious to learn that 40% of office "sick-days" occur on Mondays (20%) and Fridays (20%)--just in time to create a three-day weekend. Suspecting fraud, he decides to punish his workers. The irony, of course, is that these two days compose 40% of a five-day work week, so the numbers are completely average. Similar nonsense emerges when parents or teachers complain that "50% of students perform at or below the national average on standardized tests in mathematics and verbal aptitude." Of course they do! The very nature of an average implies that!

11) Post hoc, Ergo Propter Hoc (After This/Therefore Because of This)

a. A *fallacy* in which one event is said to be the cause of a later event simply because it occurred earlier.

i. The Cause of Malaria
"Malaria was for centuries a baffling plague. It was observed that persons who went out at night often developed the malady. So, on the best *post hoc*
reasoning, night air was assumed to be the cause of malaria, and elaborate precautions were taken to shut it out of sleeping quarters. Some scientists, however, were skeptical of this theory. A long series of experiments eventually proved that malaria was caused by the bite of the *anopheles* mosquito. Night air entered the picture only because mosquitoes preferred to attack in the dark."

(Stuart Chase, *Guides to Straight Thinking*. Harper, 1956)

ii. iPods and Violent Crime

"The Urban Institute, a research organization based in Washington, has released an interesting report that suggests that the proliferation of iPods helps account for the nationwide rise in violent crime in 2005 and 2006.

"The report suggests that 'the rise in violent offending and the explosion in the sales of iPods and other portable media devices is more than coincidental,' and asks, rather provocatively, 'Is There an iCrime Wave?'

"The report notes that nationally, violent crime fell every year from 1993 to 2004, before rising in 2005 and 2006, just as 'America’s streets filled with millions of people visibly wearing, and being distracted by, expensive electronic gear.'

"Of course, as any social scientist will tell you, correlation and causation are not the same thing." (Sewell Chan, "Are iPods to Blame for Rising Crime?" *The New York Times*, September 27, 2007)
12) Non Sequitur (It does not follow) (Slippery Slope Argument)

a. An argument which leaves out a necessary portion in a logical sequence, seeming to suggest a logical connection when in fact one does not exist.

   i. Example: American students' relatively poor performance in foreign language and geography examinations means that they should be subjected to regular standardized tests in these two areas each year throughout their mandatory period of schooling.

   ii. Example: She is a feminist; she must hate men.

b. "A non sequitur is any pretended jump in logic that doesn't work cleanly, perhaps because of unfounded premises, unmentioned complicating factors, or alternative explanations

   i. such as 'This war is righteous because we are French!'

   ii. or 'You will do what I say because you are my wife!'"  
   (Steve Hindes, *Think for Yourself*. Fulcrum, 2005)

It is also called "the Camel's Nose Fallacy" because of the image of a sheik who let his camel stick its nose into his tent on a cold night. The idea is that the sheik is afraid to let the camel stick its nose into the tent because once the beast sticks in its nose, it will inevitably stick in its head, and then its neck, and eventually its whole body.

Source Material:

http://www.uwec.edu/ranowlan/logical%20fallacies.html

http://grammar.about.com/od/e/g/eqivocaterm.htm

http://www.fallacyfiles.org/wanalogy.html

http://web.cn.edu/Kwheeler/fallacies_list.html