THE ACADEMIC SUCCESS CENTER

at **Sam Houston** STATE UNIVERSITY

Logical Fallacies

Most papers you write for college involve arguments that may succeed or fail according to the quality of your logic. This handout intends to help you understand common flaws in logical reasoning (fallacies) so that you may avoid logical mistakes and develop arguments of high quality.

Argument from Ignorance (*ad ignorantiam*)
Takes a lack of contrary evidence as support for the conclusion
  Example: *"If you can't prove that God isn't real, then he's real." Or, "If you can't prove that God does exist, then he must not exist."*
  Recognize a lack of conclusiveness as just that, inconclusive; do not mistake it for positive evidence.

Appeal to Authority (*ad verecundiam*)
Relies on the fact that someone else already agrees with the conclusion
  Example: *"We should eat carrots because my mom says they're healthy."*
  Use legitimate experts to guide you, but rely mostly on the same evidence that they use to form their expert opinions.

Ad Hominem ("against the person")
Attacks an opponent rather than their argument
  Example: *"That dentist cheated on his taxes, so ignore his thoughts on flossing."*
  When developing a counterargument, focus on what premises the person used to reach the conclusion, not on who he is.

Hasty Generalization
Makes a sweeping assumption about an entire group based on a limited selection of information
  Example: *"We had fine arts at my high school, so I don't think those classes are in danger in Texas schools."*
  Use the broadest, most representative sample you can; remain cautious about how conclusive you claim the results are.

Post Hoc Ergo Propter Hoc ("after the thing, therefore because of the thing")
Claims that chronology indicates causality; because X happened before Y, we can presume that X caused Y
  Example: *"The Cubs don't win because of the goat curse."*
  If causation is a factor in your argument, ensure that you understand the relationship between the "thing" you think is the cause and the "thing" you think is the effect.

Circular Reasoning
Uses the conclusion as a premise; will often be inadvertent and the result of restating of the conclusion within the series of points that are supposed to prove the conclusion
  Example: *"The death penalty is an effective crime deterrent because it makes people less likely to commit crimes."*

Be very careful about the way you phrase your supporting points. Ask yourself if you've merely reworded the statement that you're trying to prove. Watch your use of synonyms and definitions.

Ad Populum ("appeal to the people")
Uses the popularity of a position as proof of its validity
> Example: *"Everybody has read Twilight, so you know it's good."*
> When you use opinion polls or other indicators of popularity, use them as evidence of consensus and not as evidence of "truth."

Missing the Point
Uses a good argument, but one that supports a conclusion other than the presented one
> Example: *"This man was in the room when the necklace was last seen. Furthermore, the necklace was found in his possession. Therefore, this man murdered the necklace's owner."*
> Understand how your individual points fit together, but also how they work together to support the specific thesis you're arguing.

False Dichotomy
Presents an issue as having only two possibilities
> Example: *"You can either study for this test or fail it."*
> Don't oversimplify your information; treat it as complexly as honesty dictates.

Red Herring
Includes material that does not support the conclusion but nonetheless affects the audience
> Example: *"You shouldn't smoke because it isn't healthy and contributes to obesity and there's a childhood obesity problem in America."*
> Stay on task. Use an outline so you can see the points your paper includes. Ensure that each point fits into your overall project.

Straw Man
Misrepresents an opponent's argument to ease the process of refutation
> Example: *"Creationists think that just because the world looks complicated, it must have had an intelligent designer."*
> Adhere to the "rule of charity," which is like the golden rule of debate. Treat the arguments of others as you would have them treat your arguments.

Slippery Slope
Claims that a sequence of subsequent events will inevitably follow a given event
> Example: *"If we let homosexuals get married, next thing you know people will marry animals."*
> Whereas *post hoc* works backwards to claim that X caused Y, slippery slope works forward to claim that A will cause B. In either case, understand the nature of the causal relationship between events and use whatever evidence you deem necessary to substantiate your claim that one will cause the other.