Syllogistic logic (Section 2.4) – front of flash card

None but mean animals are bears.	Only fuzzy animals are bears.	It is not true that some bears are mean.
Only rich people are happy.	Whoever is logical is clever.	One or more wolverines are mean.
Not all people are happy.	One or more bears are not mean.	Only bears are fuzzy animals.
It is not true that all bears are mean.	Wolverines are ferocious.	Not all steaks are well done.
An animal is not a bear unless it is furry.	Wolverines are not vegetarians.	There is at least one bear that is mean.
It is false that some bears are not dangerous.	Bears are fuzzy.	Every bear likes to eat fish.
Not every bear is furry.	Whoever is thin is not jolly.	It is false that some logicians are not intelligent.
Any bear likes to eat raspberries.	Nothing is a bear unless it likes to eat raspberries.	Only bears like to eat raspberries.

no B is M	all B is F	all B is M
some W is M	all L is C	all H is R
all F is B	some B is not M	some P is not H
some S is not W	all W is F	some B is not M
some B is M	no W is V	all B is F
all B is L	all B is F	all B is D
all L is I	no T is J	some B is not F
all L is B	all B is L	all B is L

Propositional logic (Sections 6.1 & 6.8) – front of flash card

Not either A or B.	Not both A and B.	Not if A then B.
Either not A or B.	Both not A and B.	If not A then B.
If A, then B and C.	If A then B, and C.	Either A, or B and C.

A but B.	A just if B.	A only if B.
Only if A, B.	A unless B.	Unless A, B.
A if B.	Provided that A, B.	A, provided that B.
A is sufficient for B.	A is necessary for B.	A is necessary and sufficient for B.

Propositional logic (Sections 6.1 & 6.8) – back of flash card

$\sim(A \supset B)$	$\sim(A \cdot B)$	$\sim(A \vee B)$
$(\sim A \supset B)$	$(\sim A \cdot B)$	$(\sim A \vee B)$
$(A \vee (B \cdot C))$	$((A \supset B) \cdot C)$	$(A \supset (B \cdot C))$

$(A \supset B)$	$(A \equiv B)$	$(A \cdot B)$
$(A \vee B)$	$(A \vee B)$	$(B \supset A)$
$(B \supset A)$	$(A \supset B)$	$(B \supset A)$
$(A \equiv B)$	$(\sim A \supset \sim B)$	$(A \supset B)$

S- and I-rules (Sections 6.10, 6.11, & 7.1) – front of flash card

$(A \cdot B)$	$(A \vee B)$	$(A \supset B)$
$\sim(A \cdot B)$	$\sim(A \vee B)$	$\sim(A \supset B)$
$\sim(A \cdot B)$ A	$(A \vee B)$ A	$(A \supset B)$ A
$\sim(A \cdot B)$ B	$(A \vee B)$ B	$(A \supset B)$ B
$\sim(A \cdot B)$ $\sim A$	$(A \vee B)$ $\sim A$	$(A \supset B)$ $\sim A$
$\sim(A \cdot B)$ $\sim B$	$(A \vee B)$ $\sim B$	$(A \supset B)$ $\sim B$

$\sim\sim A$	$(A \equiv B)$	$\sim(A \equiv B)$

S- and I-rules (Sections 6.10, 6.11, & 7.1) – back of flash card

		A, B
$A, \sim B$	$\sim A, \sim B$	
B		$\sim B$
		$\sim A$
	B	
$\sim A$	A	
$(A \vee B)$, $\sim(A \cdot B)$	$(A \supset B)$, $(B \supset A)$	A

Quantificational logic (Sections 8.1 & 8.4) – front of flash card

All bears are furry.	Nothing is a mean bear.	No old bear is mean.
Some bears are mean.	Not every furry bear is mean.	Every bear who is old is mean.
No bears are mean.	Some old bears are mean.	No old bears are mean.
Some bears are not mean.	All old bears are furry.	Some animals are not old bears.
Some bears who aren't old are mean.	All bears who aren't old are mean.	Not all bears are mean.
Not anyone is rich.	Not everyone is rich.	If everyone is inside, then no one is outside.
If anyone is good, it will snow.	If someone is good, it will snow.	If everyone is good, it will snow.
Fido is a dog.	If everything is a dog, then everything barks.	If all dogs bark, then Fido barks.

Quantificational logic (Sections 8.1 & 8.4) – back of flash card

$\sim(\exists x)((Ox \cdot Bx) \cdot Mx)$	$\sim(\exists x)(Mx \cdot Bx)$	$(x)(Bx \supset Fx)$
$(x)((Bx \cdot Ox) \supset Mx)$	$\sim(x)((Fx \cdot Bx) \supset Mx)$	$(\exists x)(Bx \cdot Mx)$
$\sim(\exists x)((Ox \cdot Bx) \cdot Mx)$	$(\exists x)((Ox \cdot Bx) \cdot Mx)$	$\sim(\exists x)(Bx \cdot Mx)$
$(\exists x)(Ax \cdot \sim(Ox \cdot Bx))$	$(x)((Ox \cdot Bx) \supset Fx)$	$(\exists x)(Bx \cdot \sim Mx)$
$\sim(x)(Bx \supset Mx)$	$(x)((Bx \cdot \sim Ox) \supset Mx)$	$(\exists x)((Bx \cdot \sim Ox) \cdot Mx)$
$((x)Ix \supset \sim(\exists x)Ox)$	$\sim(x)Rx$	$(x)\sim Rx$
$((x)Gx \supset S)$	$((\exists x)Gx \supset S)$	$(x)(Gx \supset S)$
$((x)(Dx \supset Bx) \supset Bf)$	$((x)Dx \supset (x)Bx)$	Df

Identity and relations (Sections 9.1, 9.3, & 9.4) – front of flash card

There are at least two philosophers.	Aristotle is the first logician.	There is exactly one philosopher.
Someone besides Aristotle is a philosopher.	Everyone except Aristotle is illogical.	Aristotle alone is a philosopher.
Aristotle knows Socrates.	Aristotle knows someone.	Socrates knows himself.
Someone knows Aristotle.	Aristotle knows everyone.	Everyone knows Aristotle.
Someone knows someone.	Everyone knows everyone.	Everyone knows himself or herself.
There is someone that everyone knows.	Everyone knows someone or other.	Everyone knows someone besides himself or herself.
There is some philosopher that everyone knows.	Everyone knows some philosopher or other.	There is some philosopher that no one knows.
Everyone who knows Aristotle knows someone.	Everyone who knows everyone knows Aristotle.	Every philosopher besides Aristotle knows Aristotle.

Identity and relations (Sections 9.1, 9.3, & 9.4) – back of flash card

$(\exists x)(Px \cdot \sim(\exists y)(\sim y{=}x \cdot Py))$	$a{=}f$	$(\exists x)(\exists y)(\sim x{=}y \cdot (Px \cdot Py))$
$(Pa \cdot \sim(\exists x)(\sim x{=}a \cdot Px))$	$(x)(\sim x{=}a \supset Ix)$	$(\exists x)(\sim x{=}a \cdot Px)$
Kss	$(\exists x)Kax$	Kas
$(x)Kxa$	$(x)Kax$	$(\exists x)Kxa$
$(x)Kxx$	$(x)(y)Kxy$	$(\exists x)(\exists y)Kxy$
$(x)(\exists y)(\sim y{=}x \cdot Kxy)$	$(x)(\exists y)Kxy$	$(\exists y)(x)Kxy$
$(\exists x)(Px \cdot \sim(\exists y)Kyx)$	$(x)(\exists y)(Py \cdot Kxy)$	$(\exists y)(Py \cdot (x)Kxy)$
$(x)((Px \cdot \sim x{=}a) \supset Kxa)$	$(x)((y)Kxy \supset Kxa)$	$(x)(Kxa \supset (\exists y)Kxy)$

Modal logic (Section 10.1) – front of flash card

A entails B.	If A, then it can't be that B.	Not-A is logically possible.
A does not entail B.	If A, then it is impossible that B.	If A, then B (taken by itself) is necessary.
A entails not-B.	A is consistent with B.	If A, then B (taken by itself) is impossible.
A is a contingent statement.	A is inconsistent with B.	"A and B" entails "C."
A is a contingent truth.	A is not logically necessary.	A is true.
If A, then it is necessary that B.	Not-A is logically necessary.	If A then B.
If A, then it must be that B.	A is not logically possible.	A is incompatible with not-B.
A is true in all possible worlds.	A is true in some possible worlds.	A is true in the actual world.

Modal logic (Section 10.1) – back of flash card

$\Diamond\sim A$	$(A \supset \Box\sim B)$, *or* $\Box(A \supset \sim B)$	$\Box(A \supset B)$
$(A \supset \Box B)$	$(A \supset \Box\sim B)$, *or* $\Box(A \supset \sim B)$	$\sim\Box(A \supset B)$
$(A \supset \Box\sim B)$	$\Diamond(A \cdot B)$	$\Box(A \supset \sim B)$
$\Box((A \cdot B) \supset C)$	$\sim\Diamond(A \cdot B)$	$(\Diamond A \cdot \Diamond\sim A)$
A	$\sim\Box A$	$(A \cdot \Diamond\sim A)$
$(A \supset B)$	$\Box\sim A$	$(A \supset \Box B)$, *or* $\Box(A \supset B)$
$\sim\Diamond(A \cdot \sim B)$	$\sim\Diamond A$	$(A \supset \Box B)$, *or* $\Box(A \supset B)$
A	$\Diamond A$	$\Box A$

You do A.	Do A.	If you do A, then do B.
Don't combine doing A with not doing B.	Let everyone who is A do B.	If X hits you, then hit X.
You ought to do A.	You ought not to combine doing A with doing B.	There is someone who has a duty to do A.
A is permissible.	You ought to do A or B.	It is obligatory that someone do A.
A is obligatory.	A is wrong.	X ought to hit Y.
It is obligatory that someone do both A and B.	It is obligatory that someone who does A do B.	If you do A, then you ought to do B.
It is not obligatory that everyone do A.	It is not possible that everyone do A.	If you ought to do A, then do A.

Deontic logic (Section 12.3) – back of flash card

$(Au \supset B\underline{u})$	$A\underline{u}$	Au
$(Hxu \supset H\underline{u}x)$	$(x)(Ax \supset B\underline{x})$	$\sim(\underline{A} \cdot \sim\underline{B})$
$(\exists x)OA\underline{x}$	$O\sim(A\underline{u} \cdot B\underline{u})$	$OA\underline{u}$
$O(\exists x)A\underline{x}$	$O(A\underline{u} \vee B\underline{u})$	$R\underline{A}$
$OH\underline{x}y$	$O\sim\underline{A}$	$O\underline{A}$
$(Au \supset OB\underline{u})$	$O(\exists x)(Ax \cdot B\underline{x})$	$O(\exists x)(A\underline{x} \cdot B\underline{x})$
$(OA\underline{u} \supset A\underline{u})$	$\sim\Diamond(x)Ax$	$\sim O(x)A\underline{x}$

Belief logic (Section 13.1, 13.3, & 13.5) – front of flash card

You believe that A.	You do A.	You ought to want A to be done.
Believe that A.	Do A.	You believe that A ought to be done.
You ought to believe that A.	You act to do A.	You believe that A is evident to you.
It would be reasonable for you to believe that A.	Act to do A.	You want X to do A to you.
A is evident to you.	You want A to be done.	You believe that everyone ought to do A.
A would be unreasonable for you to believe.	Want A to be done.	Everyone believes that you ought to do A.
You do not believe that A.	You know that A. (???)	It is evident to you that if A then B.

Belief logic (Section 13.1, 13.3, & 13.5) – back of flash card

$O\underline{u}{:}\underline{A}$	Au	$u{:}A$
$u{:}O\underline{A}$	$A\underline{u}$	$\underline{u}{:}A$
$u{:}O\underline{u}{:}A$	$u{:}A\underline{u}$	$O\underline{u}{:}A$
$u{:}A\underline{x}u$	$\underline{u}{:}A\underline{u}$	$R\underline{u}{:}A$
$u{:}(x)OA\underline{x}$	$u{:}\underline{A}$	$O\underline{u}{:}A$
$(x)x{:}OA\underline{u}$	$\underline{u}{:}\underline{A}$	$\sim R\underline{u}{:}A$
$O\underline{u}{:}(A \supset B)$	$(O\underline{u}{:}A \cdot (A \cdot u{:}A))$	$\sim u{:}A$

Informal Fallacies (Sections 4.1 & 4.2) – front of flash card

appeal to authority	ambiguity	false stereotype
appeal to the crowd	beside the point	genetic fallacy
appeal to emotion	black and white	opposition
appeal to force	circularity	pro-con
ad hominem	complex question	post hoc
appeal to ignorance	part-whole	straw man

Informal Fallacies (Sections 4.1 & 4.2) – back of flash card

Assuming that the members of a certain group are more alike than they are.	Changing the meaning of a term or phrase within the argument.	Appealing in an improper way to expert opinion.
Arguing that your view must be false because we can explain why you hold it.	Arguing for a conclusion irrelevant to the issue at hand.	Arguing that a view must be true because most people believe it.
Arguing that a view must be false because our opponents believe it.	Oversimplifying by assuming that one of two extremes views must be true.	Stirring up emotions instead of arguing in a logical manner.
A one-sided appeal to advantages and disadvantages.	Assuming the truth of what has to be proved – or using A to prove B and then B to prove A.	Using threats or intimidation to get a conclusion accepted.
Arguing that, since A happened after B, thus A was caused by B.	Asking a question that assumes the truth of something false or doubtful.	Improperly attacking the person instead of the view.
Misrepresenting an opponent's views.	Arguing that what applies to the parts must apply to the whole – or vice versa.	Arguing that a view must be false because no one has proved it.

Informal Fallacies big (Sections 4.1 & 4.2) – front of flash card

appeal to authority	ambiguity	false stereotype
appeal to the crowd	beside the point	genetic fallacy
appeal to emotion	black and white	opposition
appeal to force	circularity	pro-con
ad hominem	complex question	post hoc
appeal to ignorance	part-whole	straw man

Informal Fallacies big (Sections 4.1 & 4.2) – back of flash card

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Misrepresenting an opponent's views.	Arguing that what applies to the parts must apply to the whole – or vice versa.	Arguing that a view must be false because no one has proved it.