



0 • Exam Map

COURSE + BRIEF

	10	20	30	
ASSESSMENT				WT
In-Class Participation Activity				10%
Reflective Writing Essay				20%
In-Class Participation Activity				10%
Analytical Exercise				30%
Take Home Final Assessment				30%
				FORMAT
				First in-class exercise
				Written reflection
				Second in-class exercise
				Argument analysis task
				Take-home written assessment

"This final assessment is open book for unit material. You may access course materials during the course of completing the final assessment." (ATS2946 Final Assessment page, 2026)

Use this sheet as a **desk reference**. The final rewards visible reasoning: define the controlling concept, select the fact that activates it, show the inferential link, test a credible alternative, then qualify the conclusion.

REVISION CYCLE THAT TRANSFERS

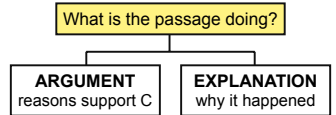
PASS	ACTION	OUTPUT
Retrieve	Recall definitions without notes.	Exact term + boundary
Apply	Use an unfamiliar case.	Fact → element → consequence
Compare	Test a credible alternative on the same criteria.	Trade-off made explicit
Correct	Record the first unsupported link.	Repair + review trigger

Allocate revision time to the **reasoning operation** the task asks for, not merely its topic. Before writing, identify the required product, scope and audience; after writing, change one assumption and decide whether the recommendation should survive.

Final-task priority: the Take Home Final Assessment is 30%. Use the assessment weights as a planning map, then follow the current task instructions for scope, format and submission. This page supplies retrieval and decision structure; it does not replace those instructions.

1 • Argument or Explanation?

C1 BOUNDARY

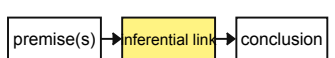


First decision: identify the communicative job before mapping. [C1 boundary]

2 • Reconstruct the Argument

C1 · P1–P6

Argument = a conclusion together with one or more premises offered as reasons for accepting it. A *premise* is a statement presented as support; the *conclusion* is the claim the audience is asked to accept on that basis.



make the missing reason explicit
then ask what would weaken it

Adapted from Decision map 1.1: premise → explicit link → conclusion.

EXTRACTION SEQUENCE

- Write the main conclusion as one precise claim.
- List each stated premise separately; strip away examples and qualifications only after preserving what they change.
- Supply the **unstated proposition** needed to connect premise to conclusion.
- Draw support or opposition; show whether reasons must combine.
- Test a counter-case and name evidence that would justify revision.

ANSWER SPINE
P1: [material fact] + P2:
[stated/implicit link] → C:
[qualified claim]

ELEMENT	DIAGNOSTIC QUESTION
Premise	What is offered as support?
Link	Why would that fact support this claim?
Conclusion	What must the audience accept?
Boundary	What changed fact reverses the judgement?

REPRESENTATION DISCIPLINE

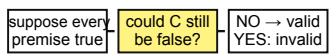
MATERIAL	MAP TREATMENT
Example	Attach it to the premise it illustrates; do not promote it automatically to a premise.
Qualification	Narrow the claim or reason it actually modifies.
Implied assumption	Write it as a complete proposition and test its denial.
Opposing reason	Point it at the precise premise, link or conclusion it challenges.

An *argument map* is a visual representation of how premises support, oppose or combine in relation to conclusions. Its value is diagnostic: it exposes where evidence ends and inference begins. After drawing it, ask which single arrow is least secure, what counter-case attacks it, and what new evidence would restore it. Preserve the writer's qualifications before compressing; otherwise the reconstructed conclusion may become stronger than the original claim.

3 • Support, Validity, Assumption

C2

Deductive support aims to make the conclusion unavoidable if the premises are true. *Validity* is a property of form: true premises cannot occur with a false conclusion. It does not, by itself, establish that the premises are acceptable.



test form, then premises

expose the support assumption

Adapted from Decision map 2.1: test deductive support before naming a defect.

Assumption = an unstated proposition needed for the stated reasons to support the conclusion as intended. Recover it by asking: *what must also be true for this move to work?* Then reverse or deny that proposition and trace whether the conclusion survives.

TEST	WHAT IT ESTABLISHES	WHAT IT DOES NOT
Validity	No true-premise/false-conclusion case	Truth of premises
Acceptability	A premise may be accepted	That it is relevant
Relevance	A reason bears on C	That support is enough
Assumption	Missing bridge is visible	That the bridge is defensible

3b • Fallacy Diagnosis

C2 BOUNDARY

A *fallacy* is a recurring pattern of defective reasoning whose weakness must be explained in context.

Naming the fallacy is not the evaluation. Show the precise damage: which reason becomes unacceptable or irrelevant, which option was wrongly excluded, or why the stated support cannot carry the conclusion.

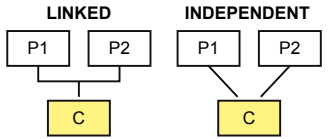
REQUIRED SENTENCE
"This move weakens [acceptability / relevance / support] because ...; if [counter-case/evidence], the conclusion should be revised."

FOUR-PASS DEFECT TEST

PASS	QUESTION
Acceptability	What supports the premise itself, and what would defeat it?
Relevance	Even if true, why does it bear on this conclusion?
Sufficiency	Could the stated reasons all hold while the conclusion fails?
Assumption	Which unstated proposition carries the inference?

4 • Complex Support Structures

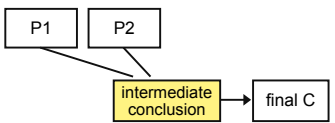
C3



Structure test: linked premises must combine; keep independent reasons separate.

Intermediate conclusion = a claim supported by earlier premises that also functions as a premise for a later conclusion. Mark it twice: first as an output, then as an input. If it fails, every later claim depending on it loses support.

Linked support requires premises to be combined before they provide the intended reason. Removing either linked premise defeats that reason. Keep independent reasons on separate lines so one may survive when another fails.



Adapted from Decision map 3.1: an intermediate conclusion is both destination and premise.

MAP CUE	STRESS TEST
Linked reasons	Remove P1 or P2: does the intended reason collapse?
Independent reasons	Can each support C without the other?
Intermediate C	Which downstream claim changes if it fails?
Opposition	Which precise claim does the objection target?

BUILD THE COMPLETE MAP

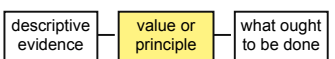
Number every proposition before drawing arrows. Start at the final conclusion and work backwards: which claim immediately supports it, and what supports that claim? An intermediate conclusion should appear once as the endpoint of earlier reasons and again as the premise for the later step. If reasons are linked, mark the joint support and test the pair together; if they are independent, test each route separately.

CHANGE	EXPECTED MAP RESPONSE
One linked premise fails	The joint reason loses its intended force.
One independent reason fails	Other routes may still support C.
Intermediate conclusion fails	Trace every downstream dependency.
New objection appears	Attach it to the exact proposition or arrow.

5 • Normative Inference

C3 · P3–P5

A *normative claim* states what ought to be done, valued or permitted, not merely what is the case. A *principle* is the general evaluative standard connecting descriptive facts to that normative conclusion.



both premises need defence

change principle → retest C

Adapted from Decision map 3.3: evidence + defended principle → qualified normative claim.

NORMATIVE BRIDGE

Fact: [harm/benefit is supported].
Principle: [general evaluative standard].
Therefore: [actor] ought to [action], unless [review condition].

Boundary: descriptive evidence cannot complete a normative inference until the relevant value or principle is stated and defended. Test at least two feasible options against the **same criteria** and stakeholder positions; otherwise the comparison is one-sided.

FAILURE	REPAIR
Fact jumps straight to "ought"	State and defend the value premise
Options use different standards	Apply one criterion to both
Principle is only named	Explain how it changes the inference
Conclusion is universal	Add uncertainty and review condition

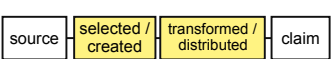
WHEN IT BITES

Use this frame whenever evidence about harm becomes a policy recommendation. Mark each intermediate conclusion; expose the contested value principle; then change one condition and ask whether the recommendation should travel.

EXAM USE → *Lead with the recommendation, then make the descriptive and evaluative premises separately visible.*

5b • Digital Evidence Process

C5 PROCESS CHECK



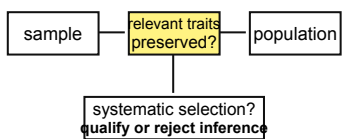
locate the first unsupported link
state what evidence would repair it

Digital evidence requires source and process checks at every transformation.

6 • Statistical Generalisation

C4

Sample = observed cases used to support a claim about a wider *population*. *Representativeness* asks whether relevant features are preserved. *Sampling bias* is systematic selection that makes observed cases differ from the population.



Adapted from Decision map 4.1: test representativeness before generalising.

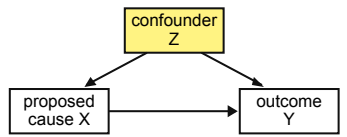
QUESTION	WHAT TO WRITE
Target?	Name the wider set the conclusion concerns.
Observed?	Name who or what actually entered the sample.
Selection?	Explain the process that may separate sample from population.
Relevant feature?	State which difference matters to the claim.
Revision?	Name evidence or a changed case that alters the inference.

Size ≠ representativeness. A larger sample reduces random variation but cannot repair systematic selection bias. For a voluntary poll, ask separately about random variation and whether volunteers differ systematically from the target population.

7 • Causation + Digital Evidence

C5

A *causal claim* says changing one factor produces or helps produce change in another. *Correlation* is measured association and alone does not identify which factor produces change. A *confounder* is associated with both proposed cause and outcome and can mislead.



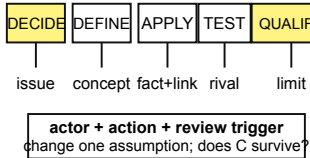
Adapted from Decision map 5.1: ask whether Z drives both X and Y.

OBSERVATION	PERMITTED INFERENCE	NEXT TEST
Correlation	X and Y vary together	Direction, selection, alternatives
Sequence	X occurs before Y	Whether X produces change
Plausible mechanism	A causal story is available	Evidence against rival causes
Confounder Z	Association may mislead	How Z relates to both X and Y



8 · Universal Answer Frame

ALL CHAPTERS



Response workflow distilled from the guide's applied decision method.

1. **Decision:** answer the question before displaying theory. Name the claim, actor and scope.
2. **Definition:** give the exact controlling concept, not a family of labels.
3. **Application:** select the material fact and explain the mechanism connecting it to the defined element.
4. **Comparison:** test a credible alternative under the same criteria; state what it excludes or preserves.
5. **Qualification:** identify uncertainty, a review condition and the evidence that would require revision.

PARAGRAPH FRAME

“The better view is [decision]. [Concept] means [definition]. Here, [fact] activates [element] because [mechanism]. However, [alternative] changes [link] because [reason]. Therefore [qualified C], unless [review trigger].”

QUESTION VERB	VISIBLE PRODUCT
Reconstruct / map	Premises, links, conclusion, hidden assumption
Evaluate	Acceptability, relevance, support + defect
Compare	Same criteria applied to credible alternatives
Recommend	Actor, action, uncertainty, review trigger

SELECT AND CONNECT FACTS

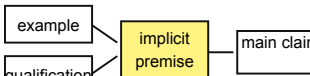
WEAK MOVE	SCORING REPAIR
Retell every case fact	Select only facts that activate a defined element.
Drop a theory label	Explain how the fact changes the inference.
List an alternative	Test it under the same criteria and show the trade-off.
End categorically	Name uncertainty, responsible actor and review trigger.

Transfer check: reverse the strongest fact. Trace the change through the defined element, mechanism and conclusion. Revise only if it changes evidence, causal link or boundary; otherwise explain why the conclusion holds.

9 · Drill: Scattered Public Claim

C1 WORKED · 4 MARKS

Prompt: reconstruct a public claim whose reasons are scattered across examples, qualifications and implied assumptions. The four-step allocation below is practice only, not an official University scheme.



reconstruct before evaluating
argument ≠ explanation

Adapted from Decision map 1.1: collect scattered reasons into one explicit support chain.

STEP	PRACTICE MARK	WRITE
1	1	Define argument and the decision boundary.
2	1	Connect facts to premise through a stated mechanism.
3	1	Compare a credible alternative and its trade-off.
4	1	Recommend an actor, action and review trigger.

COMPACT APPLICATION

Classify: state which sentence is the conclusion and which scattered statements function as premises.

Reconstruct: add the missing proposition that makes those reasons bear on that exact claim. **Test:** treat any example as support only if it changes acceptability, relevance or strength. **Conclude:** keep the result inside the boundary: reasons to believe a claim are not the same job as explaining why an event occurred.

END PRODUCT

P1 [stated reason] + P2 [implicit bridge] → C [precise public claim]; counter-case [changed fact] → revise [link/C].

MAP AUDIT

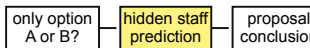
AUDIT POINT	PASS CONDITION
Main claim	One precise proposition, not the passage topic.
Reason role	Each premise points to the claim it supports.
Implicit link	A complete proposition that can be denied.
Qualification	Attached to the premise or conclusion it narrows.
Counter-case	Targets a defined element or inferential arrow.

Argument map = a visual representation of how premises support, oppose or combine in relation to conclusions. Use it as a constraint: state the supported consequence, remaining uncertainty and revision condition.

10 · Drill: Workplace Proposal

C2 WORKED · 4 MARKS

Prompt: evaluate a workplace proposal that relies on a false choice and an unstated prediction about staff behaviour. The allocation is practice only.



test an excluded alternative
then deny the hidden prediction

Adapted from Decision map 2.1: expose the false choice and assumption before judging support.

STEP	PRACTICE MARK	WRITE
1	1	Define deductive support and boundary.
2	1	Connect the facts to validity through a mechanism.
3	1	Compare a credible alternative and trade-off.
4	1	State actor, action and review trigger.

COMPACT APPLICATION

The proposal presents two options as exhaustive. First identify the excluded alternative rather than merely writing “false choice”. Next state the unstated prediction about staff behaviour that must be true for the proposal to work. Suppose every stated premise is true: if the conclusion can still be false because another live option or behaviour remains, the deductive support fails. Explain the effect on **relevance, acceptability or support**.

FINISH THE DIAGNOSIS

“The label matters because [excluded option / denied assumption] leaves open [counter-case], so the premises do not make C unavoidable. Evidence about [staff behaviour] would justify revision.”

APPLY EACH TEST SEPARATELY

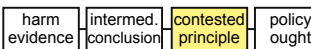
QUESTION	IF THE ANSWER IS WEAK
Are the premises acceptable?	Identify the missing or contrary evidence.
Are they relevant?	Explain why the fact fails to bear on C.
Is the support deductive?	Construct a true-premise/false-C case.
What is assumed?	State the bridge and test its denial.
What option is excluded?	Compare it on the same criteria.

Trap: naming a fallacy is not an evaluation. Identify the move, then explain how it weakens relevance, acceptability or support; state the evidence that would repair the defect.

11 · Drill: Policy Recommendation

C3 WORKED · 4 MARKS

Prompt: map a policy argument moving from evidence about harm to a recommendation through a contested value principle. The allocation is practice only.



compare a rival principle
using the same evidence + criteria

Adapted from Decision map 3.3: evidence cannot supply the value premise by itself.

STEP	PRACTICE MARK	WRITE
1	1	Define intermediate conclusion and boundary.
2	1	Connect facts through linked support.
3	1	Compare a credible alternative/trade-off.
4	1	State actor, action and review trigger.

COMPACT APPLICATION

Separate the claim that harm exists from the claim that a policy ought to follow. Mark the intermediate conclusion supported by the evidence. Then state the principle that converts that conclusion into a recommendation and defend it. Compare a credible rival option under the **same evaluative standard**; do not change criteria to favour one side. Finish with a conditional recommendation and the changed fact that would reopen it.

CHAIN

evidence of harm → intermediate C
intermediate C + defended principle → normative C
rival principle / changed condition → retest action

SYMMETRICAL COMPARISON

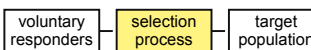
STAGE	OPTION A	OPTION B
Evidence	Use the same supported description of harm.	
Principle	State the evaluative standard.	State the rival standard.
Mechanism	How A follows.	How B follows.
Trade off	What A sacrifices.	What B sacrifices.
Review	Fact that reverses A.	Fact that reverses B.

Linked support means premises must be combined before they give the intended reason. Test each alone and together; if one is removed, state whether the intermediate conclusion and recommendation still follow.

12 · Drill: Voluntary Online Poll

C4 WORKED · 4 MARKS

Prompt: evaluate a public claim drawn from a small voluntary online poll. The allocation is practice only.



larger n reduces random variation
but does not repair selection bias

Adapted from Decision map 4.1: voluntary selection can break the sample–population link.

STEP	PRACTICE MARK	WRITE
1	1	Define sample and the decision boundary.
2	1	Connect facts to representativeness.
3	1	Compare a credible alternative/trade-off.
4	1	State actor, action and review trigger.

COMPACT APPLICATION

The observed cases are voluntary respondents; the conclusion concerns a wider population. Identify the feature on which volunteers may differ and explain why it matters to the claim. Treat small size and voluntary selection as **different defects**: more cases can reduce random variation, but systematic selection can persist at any size. The responsible conclusion is limited to the observed cases unless evidence establishes relevant representativeness.

SENTENCE FRAME

“Because entry depended on [selection process], the sample may differ from [population] on [relevant feature]. Increasing size alone would not remove that systematic difference.”

GENERALISATION AUDIT

LAYER	REQUIRED STATEMENT
Observed cases	Who answered the voluntary poll?
Wider set	Which population does the public claim name?
Selection	How did cases enter or fail to enter?
Relevant difference	Which preserved or distorted feature affects the claim?
Scope	How far may the present evidence travel?
Revision	What new sample evidence changes the judgement?

Representativeness = how far a sample preserves features relevant to the population inference. Name the feature, show how voluntary entry distorts it and limit the conclusion's scope.

13 · Drill: Causal Headline

C5 WORKED · 4 MARKS

Prompt: assess an article combining a platform trend, an algorithmic summary and a strong causal headline. The allocation is practice only.



association + sequence + mechanism
still do not exclude alternatives

Adapted from Decision map 5.1: audit both the evidence process and causal leap.

STEP	PRACTICE MARK	WRITE
1	1	Define causal claim and boundary.
2	1	Connect facts to confounder by mechanism.
3	1	Compare a credible alternative/trade-off.
4	1	State actor, action and review trigger.

Application: treat the trend as association unless changing the proposed cause is shown to produce the outcome. Test platform selection and factors associated with both. Audit the source and each transformation; then name the alternative cause and evidence that could distinguish it.

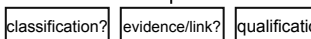
QUALIFIED END

“The evidence supports inquiry into X–Y, not the unqualified causal headline, because [selection/confounder/alternative] remains. Revise if [specified evidence] excludes it.”

14 · Fast Recall + Trap Grid

C1–C5

FIRST UNSUPPORTED LINK



repair → change one fact → retest C

Correction ledger: repair the first failure, then test transfer to a changed case.

IF YOU WROTE...	REPAIR IMMEDIATELY
“X correlates with Y, so causes Y.”	Test confounder, selection and alternative causes.
“X came first, therefore caused Y.”	Add the production claim and evidence for it.
“The summary says...”	Audit source, selection, transformation and distribution.