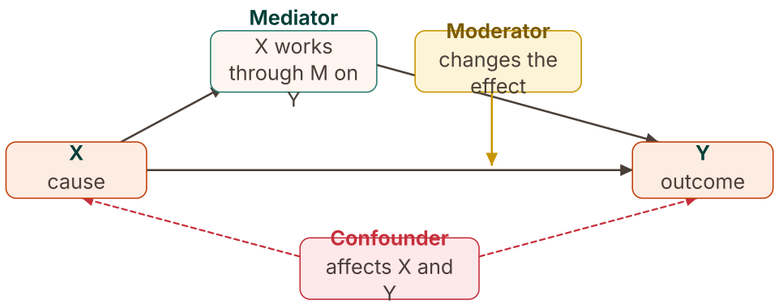
Diagnostic analytics and causality

POSTER · THE MODULE AT A GLANCE

Exam Mon, 7 Dec 2026 · 180 min

1 Causal relationship diagram



X affects Y directly and via a mediator; a moderator changes the strength; a confounder creates a spurious link.

2 Types of analytics

1 **Descriptive: what happened?**

2 **Diagnostic: why did it happen?**

3 **Predictive: what will happen?**

4 **Prescriptive: what should we do?**

Diagnostic analytics answers: why did it happen?

EXAM LIKELIHOOD

Mediator and moderator	94%
Correlation is not causation	93%
Causal relationship scheme	92%
Formulating a testable hypothesis and null hypothesis	92%
Measurement levels: nominal, ordinal, continuous, discrete	92%
Formulating hypotheses before data collection (data dredging)	90%

HOW TO WRITE THE ANSWER

1. Term
model or concept, English term

2. Definition
definition or features, precisely

3. Case fact
concrete fact from the case

4. Conclusion
judgement, advice or consequence

KEY CONCEPTS

standard deviation · standard error · confidence interval · central limit theorem · causal relationship scheme · mediator · moderator · confounder · reverse causality · internal validity · external validity