

**FACULTY OF MEDICINE
YEAR 1**



How do we learn?

The Future Physician and the Journey to Knowledge

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Year 1 Medicine · English edition

How do I know I have learned?

Rereading a topic makes it feel familiar.

Can I explain it with my notes closed?

Can I use it in a new example?

Today's learning outcomes

Choose a learning method and explain why it fits.

Check an AI response against a source.

Explain my responsibility and the support I need.

Student-centred medical education

The learner explains and justifies decisions.

The teacher makes goals and feedback explicit.

The medical school provides safe, accessible conditions.

Learning theories

Approach	Focus	Example in this lesson
Behaviourist	Observable response and feedback	Short question, correction, another attempt
Cognitive	Attention, memory and organisation	Small steps, worked example, retrieval
Constructivist	Building meaning from prior knowledge	Connecting and explaining concepts
Social learning	Observation and interaction	Hearing and discussing a peer's reasoning

Behaviourist approach

A clear task and an observable response

Timely, specific feedback

Another attempt after correction

Cognitive approach

Prior knowledge and attention affect learning.

New material can be divided into meaningful steps.

The learner studies an example, then explains it.

Constructivist approach

New knowledge gains meaning through prior knowledge.

The learner's initial explanation becomes visible.

Sources and feedback help revise the explanation.

Social learning

Observe a peer's solution and reasoning.

Make my explanation understandable to someone else.

Listen to a challenge and reconsider my reasoning.

Learning preferences and evidence

I may prefer visual or spoken explanations.

A preference does not define a fixed learner type.

I choose methods for the goal, prior knowledge and access needs.

One-minute retrieval

Close your notes and write today's four theories.

Add one activity example for one theory.

Compare with a partner and fill in a missing connection.

Choosing a study method

Purpose	Activity	Observable evidence
Remember	Short answer with notes closed	Accurate answers and gaps
Explain a relationship	Explain it in my own words	A valid causal explanation
Space practice	Try again on different days	Improvement in delayed recall
Apply	New example or supervised practice	Performance aligned with the goal

Miller's framework

Level	What it indicates	Suitable assessment
Knows	Basic knowledge	Short-answer or knowledge question
Knows how	Application of knowledge to a problem	Reasoned response to a case
Shows how	Performance in controlled conditions	Skills station or simulation
Does	Behaviour in real practice	Workplace observation

Objective, activity and assessment

Objective: explain the difference between two processes.

Activity: compare examples and write a reason.

Assessment: explain a new example independently.

Self-regulated learning

Before: set my goal and choose a method.

During: monitor understanding and seek help.

After: evaluate the result and adjust my plan.

A one-week personal plan

When	What I will do	What I will check
Today	Choose a topic and record my prior knowledge.	What can I not yet explain?
Tomorrow	Answer three questions with notes closed.	Which answer did I correct using a source?
Day 3	Explain a new example to a peer.	Is there a gap in my reasoning?
Day 7	Repeat the short learning check.	Which part of my plan needs to change?

Evidence-based medicine and research

Clinical decisions combine research evidence and expertise.

The patient's values and circumstances also matter.

Examine the question, method and finding together.

Checking a source

What exactly is the claim?

Does the source exist, and can I open it?

Does its content support this claim?

Do the method, date and context fit our question?

Tasks for AI tools

Task	Tool category	Human check
Draft questions or a study plan	Generative assistant	Does it fit the goal and knowledge level?
Make sense of a document	Source-grounded assistant	Does the cited passage support the answer?
Find scholarly sources	PubMed, library, DOI	Existence, method and content
Prepare a presentation	Presentation editor	Accurate content and source disclosure

Elements of a learning prompt

Context: Year 1 Medicine and a topic already taught

Goal: one observable action by the learner

Task: two alternatives and their rationale

Boundary: no invented sources; state uncertainty

Checking an AI response

Fictional examples containing errors. Identify and correct them.

“Transcription produces a DNA copy.”

“A reference list means every claim has been verified.”

For each claim: accept, correct or mark as unverified

Ethical responsibility

Do not upload patient or student personal data.

Look for bias, missing perspectives and false citations.

Disclose the tool, its purpose and human revisions.

People remain responsible for the final content.

A brief learning check

- 1 Is a fixed learning-style label enough to choose a method?
- 2 Which Miller level can simulation demonstrate?
- 3 What is the first check when AI gives a reference?

Moving into team work

One course topic and one learning objective

Choice of method and source verification

Concrete roles for learner, teacher and medical school

A short presentation and a personal learning commitment

The team task

Aim for 4–6 members; one device can be shared.

Everyone writes an initial idea before discussion.

Share coordination, recording, source checking and presenting.

Every member can explain the decision.

Workshop 1: 50 minutes

Minutes	Task	Interim product
0–5	Groups and roles	Group code
5–15	Individual thinking and topic choice	One objective
15–25	Discuss methods	Initial design
25–35	Generate alternatives with AI	Prompt and output record
35–45	Check two claims	Evidence record
45–50	Agree responsibilities and organise	Presentation outline

Workshop 2: 50 minutes

Minutes	Task	Interim product
0–7	Peer review	One strength and one revision
7–15	Revise and rehearse	Four slides or one page
15–40	Presentations or gallery rounds	Tool experience and role discussion
40–45	Shared reflection	Method and ethical insight
45–50	Individual exit ticket	Next learning step

A four-slide team presentation

- 1 Topic, objective and initial difficulty
- 2 Learning activity and assessment
- 3 AI suggestion, source checks and revision
- 4 Roles, access arrangements and panel-team contribution

Assessing the team product

Are the objective, activity and assessment aligned?

Are two important claims checked?

Are AI use and revisions disclosed?

Are roles concrete and participation equitable?

Are individual learning and the next step visible?

My learning responsibility

Which decision did I change because of evidence?

What will I do differently in my next study session?

What support will I seek from my teacher and medical school?

What will I contribute to my future panel team?

References and further reading

Learning: Kaufman 2003; Pashler et al. 2008

Memory: Roediger and Karpicke 2006; Dunlosky et al. 2013

Assessment: Miller 1990

Self-regulation: Zimmerman 2002

Evidence-based medicine: Sackett et al. 1996

Ethics and institutional sources

Block learning objectives 26–28 and the supplied timetable

TEPDAD National Standards for Undergraduate Medical Education, 2025

YÖK ethical guide on generative AI, 2024

UNESCO guidance on generative AI in education and research

WHO guidance on large multimodal models in health