



Ten-Minute Tool Integrations



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01

What this module is
about





Purpose

This OER helps in building graduate digital confidence in technical healthcare disciplines through short, repeated, and deliberately designed tool use in every lecture.





Why we are doing this

Digital tools are often underused in lectures due to time constraints and varying digital skills. A simple, repeatable approach makes integration easier and more effective.

What this helps with

- Builds familiarity with digital tools through repetition;
- Supports use of clinical and technical data in teaching;
- Helps lecturers integrate tools into lectures quickly;
- Encourages safe and effective use of digital tools.



What this means for you

You will leave able to

- Use 1–3 digital tools in a 10-minute lecture segment;
- Follow a simple structure (problem → demo → action);
- Apply tools to real or realistic clinical/technical data;
- Reflect on safe and effective use of digital tools.

Why start small

- Fits into busy lecture schedules;
- Reduces cognitive load for both lecturer and students;
- Builds confidence before using more complex tools;
- Encourages consistent use through simple routines.

What are the examples of digital tool categories



Category	Purpose
Communication tools	Messaging & collaboration
Telehealth tools	Remote consultations
Patient portals	Access to records & information
Monitoring tools	Home measurements & tracking
Simulation & VR	Skills training & immersive learning

What are the digital tools



Area	Examples
Simulation & VR	VR clinical simulations, immersive training
Communication	MS Teams, telehealth platforms
Patient interaction	patient portals, secure messaging
Monitoring	wearable sensors, remote monitoring dashboards
AI & analytics	AI-supported diagnostics, healthcare analytics

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Who this is for and
what they need



Audience & Needs

For:

- Lecturers in allied health, biomedical science, or healthcare technology programmes

Needs

- Quick integration of digital tools into lectures
- Simple, repeatable 10-minute teaching format
- Practical examples using health or technical data
- Ready-to-use demo scripts and mini tasks



A one-minute story

A lecturer introduces virtual reality (VR). Students follow along and complete a task in 5 minutes. Some engage quickly, others struggle with the tool.

What should the lecturer do next?

03

What you will be able
to do



What you will be able to do

01

Guide students through a short digital tool activity step-by-step

02

Use a simple structure (problem → demo → task) to support learning

03

Support students with different levels of digital skills during the activity

04

Reflect on what worked and adjust the approach for future sessions



Why this approach works (the evidence)

What we see in practice

- Students engage more when they actively use tools during the session;
- Short, guided tasks help reduce confusion when learning new tools;
- Step-by-step support improves confidence, especially for beginners.

What the literature and case studies show

Research on the effective use of digital tools in education shows that experiential learning enables students to act as problem-solvers in real-world tasks, building confidence. When digital tools are combined with collaboration and interdisciplinary projects, these approaches support the development of technical proficiency, ethical awareness, and clinical readiness.



Experiential and Practice-Based Learning

- Simulation-to-practice learning improves skill transfer
Students practice with digital tools in controlled settings before applying them in real-world contexts.
- Contextualization
are most effective when directly connected to realistic clinical scenarios, helping students understand how tools are used in real practice.



Collaborative and Interdisciplinary Skill Development

- Problem-based and collaborative learning improves decision-making
Working on real cases and in groups strengthens understanding and confidence.
- Interdisciplinary collaboration enhances real-world readiness
Working across different fields helps students integrate technical, clinical, and ethical perspectives in decision-making.
- Reflection enhance transfer to practice
Reflecting on successes and challenges helps improve future performance and practical application.

Sources

- Karkanis, N et al., *Digital Telecommunications in Medicine and Biomedical Engineering: Applications, Challenges, and Future Directions*, Eng-Advances in Engineering, 2026
- Cook et al., *Internet-Based Learning in the Health Professions*, JAMA, 2008

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How this session runs





How to evaluate the digital tool

Area	Key Question
Educational value	Does it support the learning objective?
Clinical relevance	Does it reflect realistic healthcare practice?
Accessibility	Can all students use it easily?
Safety & ethics	Does it support responsible and safe use?
Area	Key Question



How the session runs: Explain → Do → Reflect

Explain → Do → Reflect

A short VR-based clinical scenario → practice one VR simulation task → guide students through the interaction → reflect on learning

Explain:

- Introduce the VR tool and its role in clinical or technical learning
- Show one example of how it is used (e.g. anatomy, procedure, simulation)
- Briefly explain the task that students will complete



How the session runs: Explain → Do → Reflect

Practice VR simulation task

Do:

- Explore a virtual clinical scenario
- Identify key steps in the procedure
- Interact with the simulation environment

What if..

Some students struggle with VR navigation?

- → Provide step-by-step guidance and repeat key steps



How the session runs: Explain → Do → Reflect

Reflection and guidance

Reflect:

- What worked well?
- What was difficult?
- What would you change next time?

Guide:

Some students struggle with VR navigation?

- → Provide step-by-step guidance and repeat key steps



What are the inclusion and equity criteria

Challenges

- Different levels of digital confidence;
- Limited access to devices or internet;
- Language and literacy barriers;
- Accessibility needs;
- Some students may feel overwhelmed by unfamiliar tool.

Good Practice

- Use clear step-by-step guidance;
- Offer low-tech or offline alternatives;
- Keep activities short and focused;
- Test tools before class;
- Encourage peer support and reflection.

Digital tools should support participation, not create new barriers.



Sources and references

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