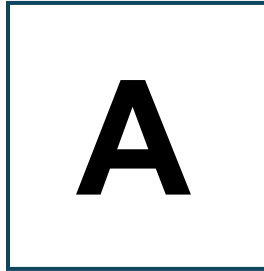




Co-funded by
the European Union

Digital Competency and Problem-Solving: Skills for Communication and Collaboration

Module 3: Continuous teaching with the help of online courses



Transformation education through digital technology



Why is it important?

The digital transformation of education, accelerated by global challenges, has brought online learning out of the niche segment into the mainstream. It is not just about moving traditional lectures online, but about fundamental changes in pedagogical approaches, access to knowledge and the concept of lifelong learning (**Lifelong Learning - LLL**). Platforms like Coursera, Prometheus, and others play a key role in democratizing education and increasing its accessibility..



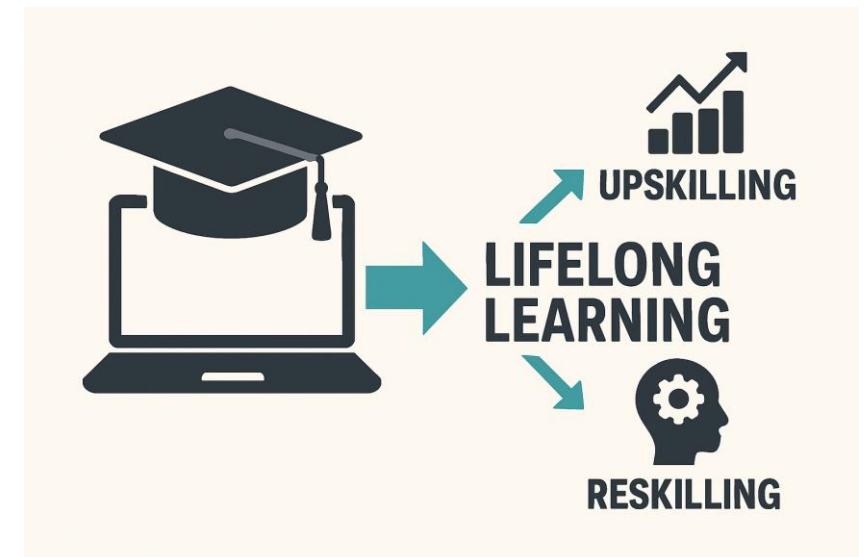
Key elements process digitalization education are:

- **Massive Open Online Courses (MOOCs):** Courses designed for an unlimited number of participants, offering open access via the Internet.
- **Small private online courses (SPOCs - Small Private Online Courses):** Often used in the corporate sector or as part of blended learning in universities, with fewer students and more interaction.
- **Open Educational Resources (OER - Open Educational Resources):** Educational materials that are freely available and can be freely used, adapted and distributed. The European Commission actively supports the development of OER through initiatives such as the portal Open Education Europe.

Requirements market labor

The integration of online courses is important for

- **upskilling** (acquiring new skills) and
- **reskilling** (retraining), which is critical in a rapidly changing labour market.



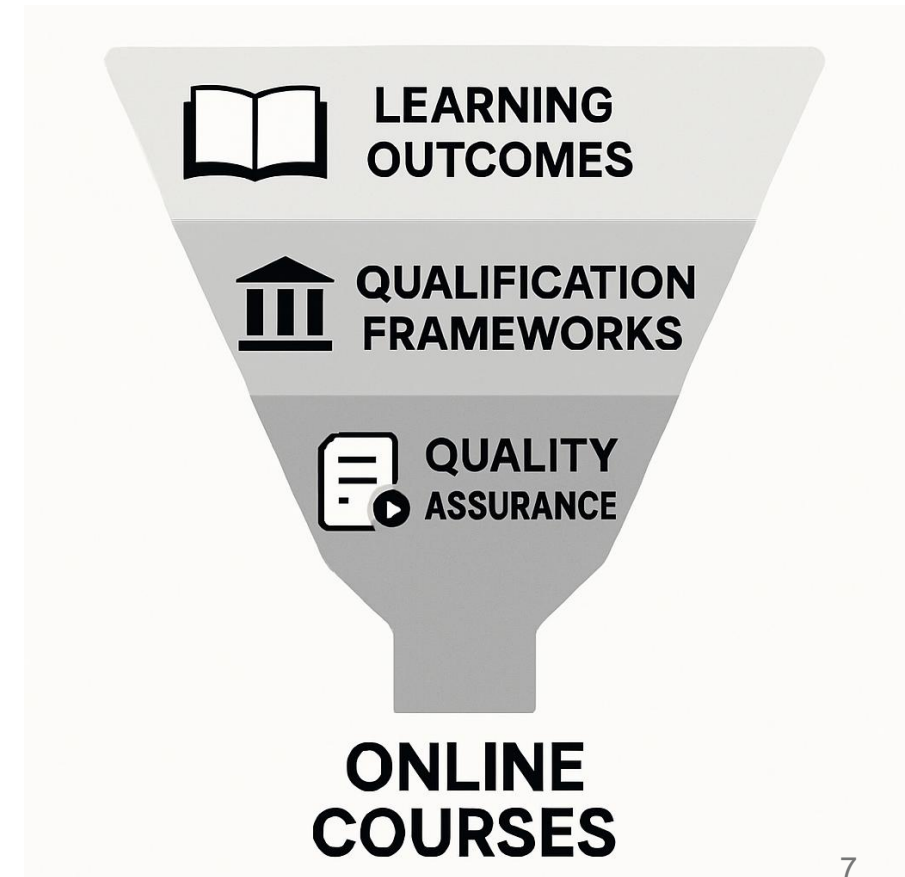
Landscape educational online platforms

- **Global leaders:**
 - Coursera
 - edX
- **Leading European platforms:**
 - Udemy (USA)
 - Future Learn (Great Britain)
 - FUN MOOC (France)
 - Miríadax (Spain)
 - university (Germany)
 - Open up Ed (Partnership EADTU)
- **Ukrainian platforms:** Prometheus etc.



B

**Methodology choice and
assessment quality of online
courses**



Course selection criteria

When choosing online courses to integrate into the learning process, it is recommended to consider:

- **Relevance to the curriculum:** The course should complement or deepen knowledge according to the curriculum.
- **Accreditation and reputation:** The origin of the course is from a reputable institution.
- **Relevance of the material:** Date of last update and compliance with current trends.
- **Duration and intensity:** Coordination with the student's academic schedule.
- **Language of instruction:** Accessibility for the target audience.
- **Ratings and reviews:** Course rating and reviews from previous students.

Harmonisation with results teaching (Learning Outcomes) and qualifying frames

- The course must clearly correspond to **learning outcomes (Learning Outcomes)**, defined for a specific discipline or educational program. These outcomes describe what a student should know, understand and be able to do upon completion of the study.
- Importantly correlate level course with the **validation frames:**
European Qualifications Framework (EQF)
National Qualifications Framework (NQF)
Ensuring transparency and comparability.

Quality assurance (Quality Assurance)

- **Provider accreditation:** Recognition of the institution.
- **European quality standards:** Look for courses that have undergone external quality assessment. For example, initiatives like the **Excellence label** from EADTU comply with the standards of **ENQA (European Association for Quality Assurance in Higher Education)**.
- **Pedagogical design:** Structure, methods, interactivity.
- **Topicality and scientific validity of content:** Audit dates renewal, links to modern research.
- **Microqualifications (Microcredentials):** Confirmation of specific skills.
- **Open Educational Resources (OER):** Use and adaptation.

Registration, accessibility, and custom experience

- **Interoperability and SSO (Single Sign-On):** Integrating university systems with educational platforms through single sign-on mechanisms, for example, using infrastructure **eduGAIN**, using your university accounts.
- **User experience (UX - User Experience):** Intuition, support.
- **Web-daccessibility (Accessibility):** compliance with standards **WCAG (Web Content Accessibility Guidelines)**, to ensure equal opportunities for all students, including those with disabilities.

Course search tools

[Class Central](#) — an aggregator of online courses from various platforms

[Coursera Search](#) — advanced search on Coursera

[Prometheus Категорії](#) — a catalogue of courses by category

[Дія. Цифрова освіта](#) — a national platform for digital literacy

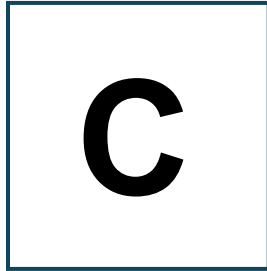
[European MOOC Consortium](#) — a consortium of European MOOC platforms

Registering and navigating the Coursera educational platform

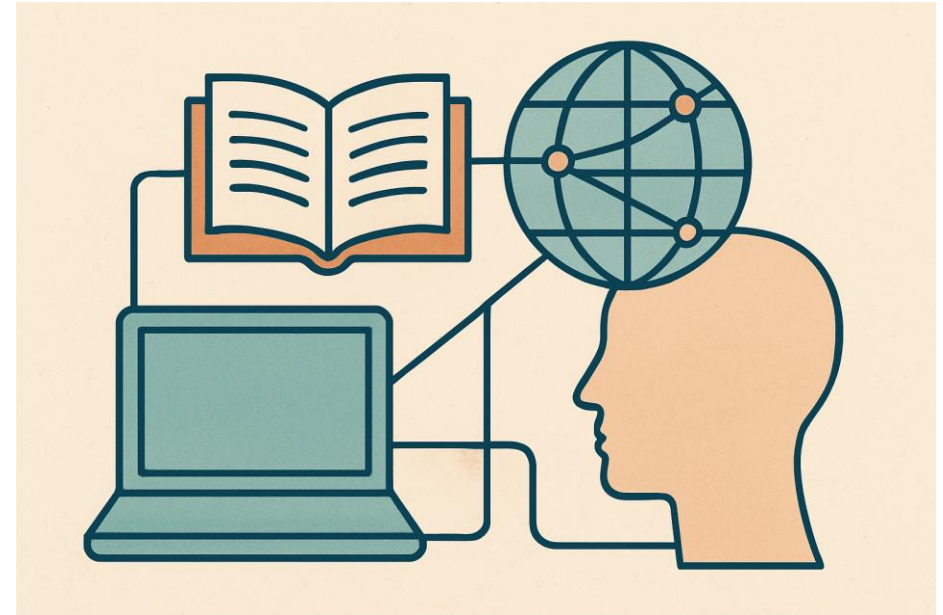
- Go to the registration page
- Create an account via email or social media
- Fill out your profile with your educational goals
- To access paid courses, you can:
 - Sign up for Coursera Plus
 - Apply for financial aid
 - Use your university subscription through Coursera for Campus

Registration and navigation on Prometheus educational platforms

- Visit Prometheus
- Click "Sign Up" and create an account
- Most courses are available for free
- You must verify your identity to receive a verified certificate



Effective in online learning



Pedagogical models in the online environment

- **Constructivism:** Students actively construct knowledge through completing tasks, participating in discussions, and implementing projects.
- **Connectivism:** A learning theory for the digital age that emphasizes the importance of connections and networks in the learning process.
- **Social learning:** Use of forums, group projects, peer assessment (peer assessment) for the joint acquisition of knowledge.



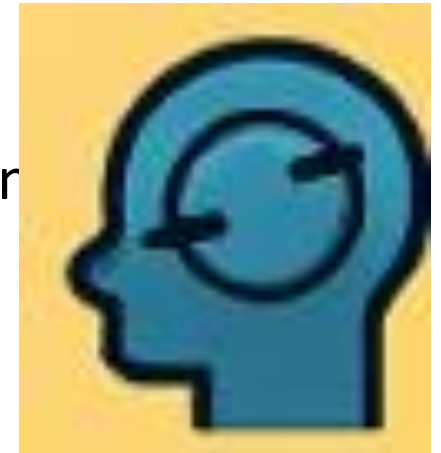
Support listeners (Learner Support)

- **Tutoring and Mentoring:** The availability of teachers, assistants, or mentors to answer questions and provide feedback.
- **Learning Communities:** Creating an environment for student interaction, sharing experiences, and mutual assistance.



Strategies for successful learning

- **Planning and regularity:** Set aside a fixed time for studying (4-6 hours per week is recommended).
- **Active learning:** Take notes, participate in forums, create your own projects.
- **Group learning:** Create a study group to discuss the materials.
- **Practical application:** Look for opportunities to apply the knowledge gained in practice.



Overcoming common problems

- **Procrastination:** Use the Pomodoro technique (25 minutes of study, 5 minutes of break).
- **Difficult material:** Look for alternative explanations, use additional resources.
- **Technical problems:** Contact the platform's technical support or use the forums.



Methods evaluation (Assessment Methods)

- **Formative assessment (Formative):** Progress monitoring (quizzes, tasks).
- **Final assessment (Summative):** Final exams, projects.
- **Online-proctoring:** Ensuring academic integrity.
- **Peer evaluation (Peer Assessment):** Development of critical thinking.

ASSESSMENT METHODS FOR ONLINE COURSES



FORMATIVE
ASSESSMENT



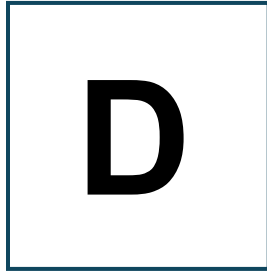
SUMMATIVE
ASSESSMENT



ONLINE
PROCTORING



PEER
ASSESSMENT



**Tools monitoring, personalization,
certification and verification of teaching**



Monitoring progress and personalization

- **Learning Analytics (Learning Analytics Dashboards – LADs):** Data visualisation for students and teachers.
- **Personal learning environments (PLE - Personal Learning Environments):** Formation of one's own educational space.
- **Self-regulated learning (Self-Regulated Learning - SRL):** The key to success.



Planning systems

Recommended techniques:

Kanban method: Visualising the workflow on a board with columns "To Do", "In Progress", "Completed".

Eisenhower Technique: Prioritising tasks by urgency and importance.

Sprint planning: Planning learning in short, intensive periods (1-2 weeks).



Built-in platform tools

- **Coursera Dashboard:** Displays progress across all courses, deadlines, and grades.
- **Prometheus Personal Account:** Displays completed modules and overall progress.



External time management tools

- [Trello](#) — boards for organising learning tasks
- [Notion](#) — a comprehensive learning management system
- [Todoist](#) — a task planner with reminders
- [Forest](#) — an app for combating distractions



Certification and verification

- **Digital badges (Digital Badges / Open Badges):** Portable skills validation.
- **Microqualifications:** Flexible certification format.
- **Europass Digital Credentials:** Secure digital format of qualifications in the EU.
- **Blockchain:** For secure certificate verification.



Types of certificates

On Coursera:

Course Certificate: For completing a single course (cost ~\$49-99)

Specialisation Certificate: For a series of related courses

Professional Certificate: For professional training programs

MasterTrack Certificate: Part of a master's program that can be transferred to a university

On Prometheus:

Certificate of Completion: Free electronic certificate

Verified Certificate: With identity verification (cost ~200-500 UAH)

Verifying the authenticity of certificates

- Coursera:** Each certificate has a unique URL and QR code for verification at coursera.org/verify
- Prometheus:** Certificates contain a unique verification code that can be verified on the platform's website



Adding Certifications to Your Resume and LinkedIn

- Add your certifications to your Education or Certifications section on LinkedIn
- Connect your Coursera account to LinkedIn for automatic addition
- Use digital badges (especially from Coursera)



Integration knowledge: types of teaching

- **Formal (Formal):** In educational institutions (diplomas).
- **Informal (Non-formal):** Structured, outside of formal education (online courses).
- **Informal(Informal):** Everyday, unstructured.
- **Recognition of prior learning (RPL / RVA / VAE):** Assessment of knowledge in all types of learning.



Integration models

Supplementing Core Courses: Using online courses as supplementary materials to core subjects.

Blended Learning: Combining traditional classes with online components.

Flipped Classroom: Students learn theory online, and practical classes are held in the classroom.

Full Replacement: In some cases, an online course can completely replace a traditional course.

Practical application of acquired knowledge

Project-based learning: Applying knowledge from online courses to solve real-world problems.

Research work: Using materials for term papers and thesis projects.

Practical tasks: Adapting tasks from online courses for classroom work.

Group presentations: Presenting key concepts from online courses to other students.



Transfer of results and credits

- **ECTS (European Credit Transfer System):** The key to mobility and recognition.
 - Based on the training load (workload).
 - Transfer of ECTS credits: Up to 25% of the credits of the educational program can be transferred based on the results of non-formal education.
 - Transfer of individual modules: Possibility of transferring part of the discipline.
 - Recognition as an elective discipline: Inclusion of the online course in the list of elective disciplines.
- **Diploma Supplement (Diploma Supplement):** Display of enrolled courses.
- **Institutional policies:** Clear enrollment rules.
- **Mixed mobility (Blended Mobility) in Erasmus+:** Physical + virtual component.



Example sand initiatives in Europe

- **European MOOC Consortium (EMC):** Quality standards, innovation.
- **EADTU:** Short training programs (SLPs).
- **National digital education strategies.**
- **University consortia:** Joint courses and programs.

