GUIDELINES
for a Holistic Approach to Crisis Sensitivity in Higher Education

Based on a Cloud University Model

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Introduction:
About these Guidelines

These guidelines are grounded in an extensive literature review and empirical research conducted within the project CLOUD HED[1], including interviews, document analysis and ethnographic accounts from four higher education institutions (HEIs) operating under crisis-conditions such as armed conflict, spillover-effects from crises in neighbouring countries and crisis anticipation, which are: Sumy State University (Ukraine), Tel-Hai University (Israel), Cardinal Stefan Wyszyński University (Poland) and Riga Technical University (Latvia). Importantly, the HEIs included in this study were already exposed to active crises or conflicts, or faced their immediate spillover effects. Consequently, many of the measures documented reflect ad-hoc, reactive responses to acute disruptions rather than pre-planned strategies. In addition, these guidelines draw on systematic curriculum analyses from both crisis-affected HEIs and established cloud-based universities operating in non-crisis contexts.

The guidelines present a **condensed and practice-oriented synthesis**, enabling HEI representatives and policymakers to quickly identify relevant information in the form of clearly structured and readily implementable recommendations. The empirical findings and the rigorous methodological framework underpinning the guidelines are documented in greater depth in two forthcoming publications that will be accessible via the CLOUD HED project website in the run of 2026.

The aim of these guidelines is not to prescribe a one-size-fits-all digital transformation strategy. Instead, they are designed to **support HEIs in becoming crisis-sensitive and cloud-ready**, enabling a temporary, rapid, and resilient shift to cloud-based operations when emergencies arise. The checklists in each section are intended to encourage institutional reflection and self-assessment, not to function as prescriptive compliance measures.

A successful transition to a cloud university model during crisis situations depends on three interrelated dimensions:

1. Crisis-ready management and governance

2. Crisis-sensitive teaching, curricula, and student support
    2.1 Crisis Sensitivity in Curriculum Structure and Delivery
    2.2 Crisis Sensitivity in Curriculum Content
    2.3 Crisis Readiness in Teaching
    2.4 Crisis Readiness in Student Support E

3. Crisis-ready technical and IT infrastructure

1. Crisis Readiness in Management and Governance

> **KEYWORDS:**
> governance flexibility, crisis leadership, targeted training for management personnel

HEIs commonly operate under shared governance models, with authority distributed across central administration, faculties and student representatives. While such models foster participation and academic autonomy, crisis situations require **rapid, coordinated decision-making** that can respond to highly uneven conditions across faculties and student groups.

Empirical evidence from crisis-affected HEIs shows that effective crisis response relies on a **combination of centralised strategic leadership and decentralised operational autonomy**. Central leadership is essential for setting priorities, reallocating resources, and ensuring institutional continuity, while decentralised units must retain enough autonomy to respond to specific constraints and needs.

A key element of crisis readiness is the establishment of permanent or semi-permanent emergency working groups or committees. As suggested in pertinent literature, these bodies should be responsible for developing, reviewing, and updating contingency plans, including scenarios involving sudden campus closures, staff shortages, or disruptions to digital infrastructure.

However, structural preparedness alone is insufficient. **Crisis readiness also requires cultural change.** Many HEIs remain strongly oriented toward in-person academic norms, such as face-to-face teaching, on-campus governance and physical presence as a marker of academic engagement. Crisis-sensitive management must explicitly recognise and legitimise digital and remote modes of operation – not merely as temporary or inferior substitutes during the initial phase of a crisis (e.g. the first three months), but as valid and necessary forms of academic work for sustained and long-term activities during emergencies.

When digital tools are integrated into management and governance processes, coherence and integration are critical. Fragmented systems and overlapping platforms can increase uncertainty and slow decision-making. Management personnel therefore require targeted training focusing on:

- altered workflows and decision chains,

- digital communication protocols, and

- data protection and cybersecurity responsibilities.

Such training is only effective when accompanied by workflow standardisation, clearly defined roles and responsibilities, and transparent communication structures. Together, these measures enhance institutional cloud readiness and reduce friction during crisis transitions.

Checklist: Crisis-Ready Management and Governance

☐ Is there a clearly defined balance between central leadership and decentralised decision-making?

☐ Do emergency committees or task forces exist and meet on a regular basis?

☐ Are digital and remote governance practices formally legitimised?

☐ Are management tools integrated rather than fragmented?

☐ Have managers received training in digital workflows, communication, and cybersecurity?

2. Teaching, Curriculum and Student Support

Curricula and teaching practices are at the core of institutional resilience in crisis situations. Armed conflicts and other severe crises often unfold over unpredictable timeframes, profoundly affecting students' ability to study. Conscription, displacement, psychological stress and damaged infrastructure may force students to pause their studies, reduce their workload, or shift toward highly autonomous learning.

The guidelines in this chapter are based on an extensive literature review on higher education in crisis contexts, empirical analysis of curricula from crisis-affected HEIs[2], and comparative analysis of highly cloud-ready degree programmes offered by universities that operate primarily online for non-crisis reasons[3]. These cases demonstrate how cloud-based curricula can remain academically rigorous while maximising flexibility and accessibility.

2.1 Crisis Sensitivity in Curriculum Structure and Delivery

KEYWORDS:
self-paced study, modularity, asynchronous delivery, alternative assessment

Accessibility is the defining principle of crisis-ready curricula. At the structural level, this requires curricula that allow students to progress at variable speeds and adapt their studies to changing life circumstances.

A central feature of such curricula is modularity. **Modular and stackable programme designs** allow learning outcomes to be achieved in smaller, self-contained units.

Policies enabling students to pause and resume their studies should be implemented at the institutional level, rather than left to individual programmes or instructors. These policies must be flexible enough to accommodate diverse crisis-related disruptions, including military service, displacement or caregiving responsibilities.

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[2] SSU: "International Economy and International Management", https://op.sumdu.edu.ua/#/programm/3275; Tel-Hai: "Management and Organisation of Educational Systems", https://www.telhai.ac.il/en/node/3490; RTU: "Educational Sciences", https://www.rtu.lv/en/studies/all-study-programmes/open/educational-sciences?id=249; UKSW: "Managerial Economics", https://ects.uksw.edu.pl/en/programmes-all/EK018/WSE-EMN-N-2/. All these are curricula for Master programmes.

[3] FernUniversität Hagen, Germany: "Educational Science with a Focus on Digital Media or Adult/Continuing Education", Master programme, https://www.fernuni-hagen.de/english/study/academic-programs/master-education.shtml; Open University, UK: "Global Online MBA", https://business-school.open.ac.uk/study/postgraduate-qualifications/mba; Open University of Catalonia, Spain: "Technology-Mediated Language Teaching and Learning", Master programme, https://www.uoc.edu/en/studies/masters/masters-degree-technology-language-teaching; University of Sydney, Australia: "Master of Business Administration (Technology and Digital Strategy)", https://www.sydney.edu.au/courses/courses/pc/master-of-business-administration-technology-and-digital-strategy.html

For pausing and re-entry to be viable, curricula must minimise rigid sequencing requirements and offer courses frequently enough to support re-integration. The ability to switch between full-time and part-time study is particularly important and is most easily achieved through asynchronous, self-guided learning formats.

At the same time, **excessive flexibility can undermine student engagement**. Peer interaction, academic guidance and structured learning communities remain essential for "studyability"[4]. Crisis-ready curricula therefore balance flexibility with intentional opportunities for interaction, such as moderated discussion forums, peer feedback activities and collaborative projects.

While some cloud-based programmes incorporate optional face-to-face components, crisis conditions often make physical meetings impossible. In such cases, innovative online collaboration formats, including simulations and case-based group work, become crucial.

Given **unstable connectivity in many crisis contexts**, curricula should ensure that learning materials are downloadable and, where possible, accessible through offline or low-bandwidth solutions.

Assessment practices require particular adaptation. Rigid, timed examinations are often unfeasible and can exacerbate stress. Instead, crisis-sensitive assessment prioritises continuous and competency-based assessment as well as authentic tasks linked to real-world problem solving, such as portfolios, projects, peer assessments, and oral examinations.

Academic integrity can be supported through assessment design rather than surveillance alone. Open-book exams, reflective assignments and project-based assessments reduce incentives for misconduct while remaining feasible under poor connectivity conditions.

Finally, curricula and assessment policies must account for psychological stress and trauma. This includes extensions, alternative assessments, reweighting of grades, and special arrangements for students in military service. Formative feedback is another important element of assessment in remote or asynchronous teaching settings, enhancing student engagement and enabling tutors to identify knowledge gaps. The ability to rapidly switch between in-person, hybrid, and remote assessment formats is essential.

Checklist: Curriculum Structure and Delivery

☐ Is the curriculum modular and stackable?

☐ Can students pause, resume, or adjust their study intensity easily?

☐ Are learning materials accessible asynchronously and offline?

☐ Are assessment formats flexible and competency-based?

☐ Are trauma-sensitive policies and contingency assessment options in place?

[4] Literally translated from the German term "Studierbarkeit", describing whether the structure and organisation of a degree programme allow students to successfully progress and complete their studies as intended, without structural constraints imposed by the programme design itself.

2.1.1 Micro-credentials within crisis-sensitive curriculum structures

> **KEYWORDS:**
> micro-credentials, stackability, formal recognition, continuity

Micro-credentials, typically lasting three to six weeks, are particularly effective in crisis contexts, as they fulfil the following requirements:

- reduce the perceived risk of enrolment,

- allow students to pause and re-enter without losing progress, and

- support gradual accumulation of qualifications.

Within crisis-sensitive curricula, micro-credentials can serve as a **targeted mechanism to enhance continuity and formal recognition of learning** under conditions of disruption. Building on modular programme structures, micro-credentials typically comprise short, self-contained learning units that can be completed independently and formally recognised.

In crisis contexts, micro-credentials are particularly relevant where students face **repeated interruptions or uncertainty** regarding the duration of their studies. By allowing learning outcomes to be certified incrementally, they reduce the risk that partially completed studies remain formally unrecognised. This is especially important for students affected by displacement, conscription or prolonged absences.

Micro-credentials are most effective when they are embedded within coherent degree pathways. Stackable or nested credential structures enable students to accumulate certificates or intermediate qualifications while retaining the option of progressing toward a full degree once circumstances permit.

In this way, micro-credentials support continuity without replacing degree programmes.

From a delivery perspective, micro-credentials align well with asynchronous and cloud-based teaching formats. Their limited scope facilitates flexible scheduling, repeated course offerings, and adaptation to low-bandwidth or partially offline conditions. At the same time, their implementation requires careful coordination to avoid curricular fragmentation or increased administrative complexity.

Micro-credentials should therefore be understood as one **possible structural element within crisis-sensitive curriculum design**. Their introduction should be guided by institutional capacity, quality assurance frameworks and alignment with existing regulations, rather than applied as a stand-alone solution.

Checklist: Micro-credentials

☐ Are micro-credentials embedded within modular and stackable degree structures?

☐ Do they allow for formal recognition of learning during interrupted study trajectories?

☐ Are micro-credentials aligned with existing programme regulations and quality assurance frameworks?

☐ Are delivery formats suitable for asynchronous and low-bandwidth contexts?

☐ Is the risk of curricular fragmentation or administrative overload addressed?

2.2 Crisis Sensitivity in Curriculum Content

> **KEYWORDS:**
> transversal skills, resilience skills, labour-market relevance, equity and inclusion

In crisis-prone environments, curricula must prepare students for **volatile and uncertain labour markets**. This requires a stronger emphasis on transversal and resilience-oriented skills, such as, but not limited to:

- critical thinking and problem solving,
- strategic adaptability,
- collaboration and socio-emotional skills,
- ethical reasoning and cross-cultural competence, and
- information and digital literacy.

These skills should not be treated as generic add-ons. Instead, they must be embedded meaningfully within disciplinary content and aligned with programme-specific learning outcomes. Cross-disciplinary crisis modules can be valuable but require careful integration to avoid curricular overload.

Curriculum development should also consider labour market needs shaped by the crisis. Collaboration with industry partners, civil society organisations, and international HEIs can enhance labour-market relevance and open pathways for students affected by disrupted local economies.

Equity and inclusion must be explicit curricular commitments. Teaching and assessment should be designed to be accessible, anti-discriminatory, and sensitive to diverse student backgrounds and crisis experiences.

Checklist: Curriculum Content

☐ Are transversal and resilience skills embedded throughout the curriculum?

☐ Are skills aligned with disciplinary and programme objectives?

☐ Does the curriculum take into account post-crisis labour-market needs?

☐ Are equity, inclusion, and accessibility explicitly addressed?

2.3 Crisis Readiness in Teaching

> **KEYWORDS:**
> digital pedagogy, faculty preparedness, trauma-informed teaching

Teaching staff play a central role in enabling smooth and efficient transitions to cloud-based delivery. Under crisis conditions, **teaching staff are often heavily burdened** by their own concerns and fears, while simultaneously carrying significant responsibility for creating a safe, stable, and supportive learning environment for students, frequently assuming a strong sense of personal responsibility in maintaining normalcy so that students can feel secure and able to engage.

Crisis readiness in teaching requires ongoing training in digital, psychosocial and pedagogical literacy, including:

- effective use of learning platforms,

- online assessment strategies,

- student engagement in asynchronous settings, and

- self-care for maintaining teachers' own emotional well-being and resilience.

In addition, staff should receive training in trauma-informed pedagogies, enabling them to recognise stress responses, communicate empathetically, and adjust expectations without compromising academic standards.

Checklist: Teaching Readiness

☐ Are staff trained in digital skills, especially regarding learning management systems (LMS) and online pedagogy?

☐ Are alternative teaching and assessment strategies known and practised regularly?

☐ Are self-care and trauma-informed teaching incorporated into professional development?

2.4 Crisis Readiness in Student Support

KEYWORDS:
psychological services, academic advising, peer support, digital inclusion

Sustaining student engagement in remote and crisis conditions requires comprehensive cloud-based student support systems. These should comprise:

- psychological counselling,

- academic advising,

- tutoring and study skills support,

- digital literacy training, and

- peer-to-peer exchange spaces.

Crisis transitions often expose or deepen digital inequalities. Device-loan schemes, subsidised connectivity, and low-bandwidth support options are therefore critical components of crisis readiness.

Checklist: Student Support

☐ Are counselling and advising services accessible online?

☐ Are peer support and tutoring integrated into digital platforms?

☐ Are measures in place to reduce digital inequalities?

3. Crisis Readiness in Technical Infrastructure

> **KEYWORDS:**
> integrated cloud ecosystems, resilience, cybersecurity

Crisis situations amplify the need for **coherent and resilient digital infrastructures**. Integrated cloud ecosystems linking learning management systems (LMS), administrative platforms, communication tools, and assessment systems reduce operational complexity and enable effective scaling.

Technological adaptability requires long-term investment in network capacity, redundancy, and cloud services. Cloud solutions may range from infrastructure-level services to fully managed software platforms, each with different implications for institutional control and responsibility.

However, heavy reliance on commercial cloud providers can create dependencies related to data sovereignty, costs and loss of control over core functions. Moreover, cloud systems remain dependent on stable internet access. Crisis-ready infrastructure therefore requires **contingency planning, including offline access and network resilience**.

Cybersecurity is a critical concern. HEIs must implement strong encryption, multi-factor authentication, unified identity management and continuous staff training in data protection and compliance.

Checklist: Technical Infrastructure

☐ Are digital platforms integrated across teaching and administration?

☐ Is the institution able to shift temporarily to cloud-based operations?

☐ Are dependencies on external providers critically assessed?

☐ Are network resilience measures and offline contingencies in place?

☐ Are cybersecurity standards and staff training adequate?

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