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LDTC 605 9040 · Unit 1 Assignment: Minicourse Idea, Knowledge Gap, and UDL

Minicourse Idea

My minicourse is Digital Foundations, the first module of a six-part Getting Ready to Work with AI pathway. It teaches the practical groundwork that has to be in place before any AI training can stick: how a device protects data, how to lock down accounts and back up work, and how to read the everyday risks that surround any AI workflow. The course is nine short lessons in about ninety minutes of self-paced online study, with five hands-on exercises and a one-page map of the learner's device, accounts, and data as the capstone they keep and reuse in the modules that follow.

Knowledge (Learning) Gap

Most AI literacy training assumes a level of digital fluency that working adults do not actually have. The European Commission's Joint Research Centre defines that fluency in DigComp 2.2 as twenty-one core competencies across five areas (information and data literacy, communication and collaboration, digital content creation, safety, and problem solving), and notes that without them an adult cannot meaningfully participate in a digital economy (Vuorikari, Kluzer, & Punie, 2022). The same gap shows up at the workplace. A 2025 report from MIT Project NANDA found that the large majority of enterprise generative-AI pilots produce no measurable business value, and the dominant cause is a learning gap rather than a model gap (MIT Project NANDA, 2025). When the underlying digital foundations are weak, AI training has nothing to land on, and learners walk away frustrated by tools they cannot operate confidently. My background is in cybersecurity, and I have watched this play out at workshops where people

are being asked to evaluate an AI vendor's privacy policy when they cannot yet manage their own password manager or back up their own files. Digital Foundations sits ahead of the AI work so that any later AI training, and any AI tool a learner actually uses on the job, has a stable base to sit on.

Universal Design for Learning Reflection

Universal Design for Learning gives me three concrete checkpoints to keep this minicourse flexible and inclusive (CAST, 2024). Engagement comes from the work feeling immediately useful. Every lesson starts on the learner's own device, accounts, and files instead of canned screenshots, and each lesson opens with a short confidence check so an experienced learner can skip ahead while a less confident one can take an extra worked example. Representation is handled by introducing each new term in plain language first and naming it second. A password manager is a locked notebook your apps can read before it is called a credential vault. Full-disk encryption is a lock on the whole filing cabinet before it gets its technical name. Every concept lesson is paired with a short captioned demonstration video plus a written transcript so learners can choose the modality that fits the moment. Action and Expression shows up in how learners prove competence: short hands-on tasks performed on their own machine instead of multiple-choice quizzes, with the capstone being the one-page map of the learner's device, accounts, and data that doubles as the foundation artifact reused in the AI-specific modules later in the pathway. The site itself ships to Web Content Accessibility Guidelines 2.2 Level AA (W3C, 2024) with full keyboard navigation, scalable text, color-contrast checks, and indicators that do not rely on color alone. Coming from cybersecurity, I am used to the principle that controls have to work for the people who actually use them, not just for

an audit. UDL is the same idea applied to teaching: build the course so the variety of learners you actually have can use it.

References

CAST. (2024). Universal Design for Learning guidelines (Version 3.0). https://udlguidelines.cast.org

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Vuorikari, R., Kluzer, S., & Punie, Y. (2022). DigComp 2.2: The Digital Competence Framework for Citizens, with new examples of knowledge, skills and attitudes (EUR 31006 EN, JRC128415). Publications Office of the European Union. https://publications.jrc.ec.europa.eu/repository/handle/JRC128415

W3C. (2024). Web Content Accessibility Guidelines (WCAG) 2.2. https://www.w3.org/TR/WCAG22/