



## LEARNx: DEEP LEARNING THROUGH TRANSFORMATIVE PEDAGOGY - SYLLABUS

### COURSE DESCRIPTION

This course explores deep learning by bringing together the most up-to-date research from cognitive psychology, contemporary educational theories, and neuroscientific perspectives.

Deep learning encourages students to become creative, connected, and collaborative problem solvers; to gain knowledge and skills for lifelong learning; and to use a range of contemporary digital technologies to enhance learning.

To facilitate deep learning, teachers can employ a diverse range of powerful teaching strategies and authentic learning activities to assist students to become independent thinkers, innovative creators, and effective communicators.

### LEARNING OBJECTIVES

What you'll learn includes:

- The features of surface and deep learning;
- Neuroscientific, psychological, and educational theories supporting deep learning;
- The importance of communication skills in deep learning;
- The role of student motivation and positive social relationships in deep learning;
- How effective feedback can support deep learning.

### COURSE AIMS

This course aims to provide the learner tools to encourage deep learning, particularly in the educational environment but which can be applicable across other sectors; and the knowledge to introduce these approaches to teaching and learning.

## COURSE AUDIENCE

This course is open to all. LEARNx can be used as community, schooling and workforce education for academics, those in the corporate sector, parents, teachers, other school professionals, and community organisations.

## LEARNING OUTCOMES

Learners who complete this course will be able to:

- Develop a layered and nuanced understanding of deep learning and how it differs from surface learning.
- Understand and describe the key features of deep learning from a psychological, neurological and educational perspective.
- Appreciate the interrelatedness of scientific and sociocultural perspectives to create activities for deep learning.
- Apply effective communication skills, including purposeful questioning, scaffolding, and dialogic approaches that support students to engage in deep learning.
- Understand and analyse what motivates learners to engage with deep learning processes and experiences.
- Understand the role of affective and emotive factors in learner motivation, including self-determination, self-regulation, and critical self-reflection.
- Give effective feedback with a focus on the mode of delivery, timing, and utilisation of learner responses to feedback.
- Use a range of techniques to critically reflect on and adapt teaching and learning practices.
- Become familiar with various digital technologies and assess which of these can support deep learning.

## COURSE SCHEDULE

The course comprises four modules which has content and information divided into various topics related to deep learning. The four modules should be completed in the order in which they are presented before completion of the Final Assessment module. Each module should take approximately two hours to complete.

Course participants will have various backgrounds. For those in leadership and management roles, there are a range of differentiated activities identified throughout the course. These activities are not compulsory for individual participants but naturally, all learners in this course are invited to engage in the reflection and discussion these activities encourage.

Understanding the nature of deep and surface learning is a complex and ongoing process that does not sit tidily within a time frame. While each module is designed to take approximately two hours to complete, participants may find themselves particularly engaged in one or another activity, discussion point or exploring the additional materials provided. We thus encourage all participants to find the right balance between learning about deep learning and actually engaging in deep learning – this will be a profoundly individual experience.

### **MODULE 1: Surface and deep learning**

Module 1 focuses on the history of surface and deep learning and delves into the question,

**What is learning?** We will explore:

- the structure of the brain and how it responds to different learning experiences,
- the mental architecture of the brain - how we learn in emotional contexts, behavioural theories,
- the dynamically interactive relationships between the regions of the brain, and
- the history of schooling in relation to deep and surface learning.

### **MODULE 2: Communication skills**

Module 2 examines verbal and non-verbal communication skills and considers the importance of effective communication for deep learning. We will focus on:

- questioning, dialogic approaches, and linguistic tools for communication, and
- how these contribute to learners constructing their own understanding of content.

### **MODULE 3: Motivating students for deep learning**

Module 3 examines student motivation and the importance of teacher-student relationships.

We will explore:

- the role of self-determination, self-regulation, and motivation at different age levels, and
- the tools and strategies to develop motivation through social learning.

### **MODULE 4: Feedback**

Module 4 considers the nature of feedback and the role of effective feedback for deep learning, including why:

- questioning is a powerful form of feedback, and
- why confusion and error making can develop self-assessment skills which are the ultimate goal for self-regulated learners.

## **EXCLUSIVE EDX BADGE ON THE MICROSOFT EDUCATOR COMMUNITY**

Upon completion of the course you will have the opportunity to earn yourself an exclusive edX badge on the Microsoft Educator Community. We will share details in the course.

## **VIDEOS**

Each module contains a number of videos that illustrate and explore key ideas related to deep and surface learning. You can speed them up or slow them down as you prefer.

You can also view the videos in fullscreen or in high definition depending on the speed of your internet connection. You are welcome to download videos to watch later on your mobile device, share with your colleagues and peers, or present to your class or other professional presentations. All of our content is available for use under a Creative Commons-Sharealike – Noncommercial License.

## **TEXT**

Distilling complex ideas into understanding the nature of deep learning in our videos alone is challenging. That's why you'll find the concepts and ideas covered in each video are also explained in a lot more detail in surrounding text. We'll cover how educators have addressed these concepts and big ideas over time to where the current 'thinking and practice' around transforming pedagogical practices to facilitate deep learning is at in the 21st century.

Don't worry if everything seems complex and challenging at the first go – understanding the nature of deep learning is complex, so it's common to re-read and rewatch things before the concepts and big ideas begin to sink in.

To help you with this, we have provided a series of interactive tools which will both assist you in your learning but also mimics the nature of deep learning teaching practices.

## **DIFFERENTIATED ACTIVITY FOR PROFESSIONAL DEVELOPMENT**

Course participants will have various backgrounds, ranging from early childhood to tertiary educators, parents, the corporate sector and anywhere in between. For those in leadership and management roles - whether in schools or not - there are a range of differentiated activities identified throughout the course. These are designed for leaders and managers supporting their own staff to adopt and develop deep learning practices across an organisation and can be undertaken in small groups. Such tasks are not compulsory for individual participants, but naturally all are welcome to engage in the reflection and discussion these tasks encourage.

## DISCUSSION FORUM

The development of deep learning knowledge and skill isn't something acquired passively. It's a skill that requires active development and participation. So being able to practice your thinking, analysing, and making your own arguments is an important part of this course. The course discussion forum is one way in which this can be achieved.

Each module will have a number of discussion threads on the key ideas covered where you can join in, reflect on what's being covered, and explore the ideas and experiences presented. These forums will be moderated to guide you along the pathway of exploring these concepts and big ideas around deep learning (more deeply!) but a lot of the learning comes simply from responding to and engaging with others.

There are a few important ground rules you need to be aware of:

- Challenge ideas, not people. Academics and educator practitioners are critical thinkers but we challenge ideas, not the people holding those ideas.
- Keep an open mind. Learners in this course will derive from various learning and teaching contexts and experiences, so keep an open mind to new ideas and possibilities around the teaching of deep learning practices.
- Give the benefit of doubt. Online discussions are not as information rich because they lack many visual and aural clues like body language and tone. It's important therefore, to interpret others in the best light possible.

## JOURNAL REFLECTION TASKS

Another way of being actively engaged within this course is through the journal reflection tasks. These tasks are located in each module. We invite you to draw on your own learning and teaching experiences as you develop your understanding and knowledge of the complexities of deep learning (for more on this please refer to the 'Navigating LEARNx learner user guide' in the course sidebar).

## ASSESSMENT AND COMPLETION REQUIREMENTS

This course is self-paced. All course content is released on the starting day of the course. We will notify learners of any updates to the course by posting an alert on the Home page. Learning outcomes for this course are assessed through a range of ungraded and graded activities. Ungraded assessments include discussion posts and other activities.

## GRADED ASSESSMENTS INCLUDE:

- Dropdown quizzes, multiple choice, true or false (40%)
- Self-reflected journal tasks (30%); and
- Final Assessment: The Deep Learning scenario practice peer assessment and peer assessment task (5% + 25%)
- The pass mark for this course is 70%.

The due-by-date for all assessment is the last day/closing day of the course.



It is important to note that the final assessment is peer graded, so you will need to submit it in time for your peers to do their marking and for you to grade and provide feedback to your peers, also. Thus, the closing day deadline for this assessment includes the peer marking to have been completed in addition to your own writing submitted.

## PRACTICE AND PEER ASSESSMENT TASK

You will apply what you have learnt about the nature of Deep Learning and student engagement to create a 500 word educational scenario, incorporating six identified features for a Deep Learning approach.

How you present this is up to you. You could do it as a lesson plan, in prose, paragraph form, a blog, or whatever format you want. You might like to draw on your previous reflective journal entries to complete this task.

Once you submit your educational scenario, you will then be required to review, grade and provide feedback on scenarios submitted by your peers in this course.

You will use a provided rubric to grade your peers' scenarios and provide helpful feedback. A rubric is a document that lays out assessment criteria and how much criteria is worth when grading. Your peers will use the same rubric to grade your scenario and provide you with feedback.

To assist you in this task, there is a practice peer assessment worth 5%, provided prior to the final assessment, that will allow you to practice using the rubric on three examples of educational scenarios that model what is expected from you for your final assessment. You will be allowed unlimited attempts to complete the practice assessment.



You must start the process of the final assessment allowing sufficient time **BEFORE** the course end date, because you will also need to allow for the time it will take to review and grade your peers' scenarios and receive feedback on your scenario from your peers.