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# **Overview**

The Graduate Certificate of Secondary Digital Technologies is a two-year course consisting of 4 units that participants complete across 2024 and 2025. The units integrate the three interconnected strands of the Victorian Curriculum: Digital Technologies (Creating digital solutions, Data and information and Digital systems) to further participants’ pedagogical content knowledge and skills. The first three units support teachers to develop their knowledge and professional skills within the strands of the Digital Technologies secondary curriculum. Unit 4 provides an opportunity for teachers to draw on the knowledge built in the previous units to investigate, design, develop, communicate, and refine curriculum resources that respond to the circumstances, contexts, and opportunities of their own schools. All units involve experiential, hands-on learning, where teachers will identify, develop, and share teaching and learning resources.

# **Face-to-face intensives and after-school online workshops**

Each unit will comprise two 2-day intensives over the semester (one per term) and three 90-minute online workshops (per semester) held after school hours.

The intensives will involve activities designed to develop participating teachers’ knowledge and skills in Digital Technologies curriculum content, teaching strategies, curriculum planning, and assessment, to support student learning. This will include a mixture of hands-on experiential learning, peer-to-peer discussion and sharing, and exposure to a range of digital technologies and resources, including online repositories, digital equipment, online platforms, and unplugged resources.

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| Intensive Days | | Date | Venue |
| Unit 1 | 1-2 | 19-20 February 2024 | Crown Plaza, Melbourne CBD |
|  | 3-4 | 6-7 May 2024 | Crown Plaza, Melbourne CBD |
| Unit 2 | 5-6 | 22-23 July 2024 | Crown Plaza, Melbourne CBD |
|  | 7-8 | 7-8 October 2024 | Crown Plaza, Melbourne CBD |
| Unit 3 | 9-10 | 17-18 February 2025 | Crown Plaza, Melbourne CBD |
|  | 11-12 | 12-13 May 2025 | Crown Plaza, Melbourne CBD |
| Unit 4 | 13-14 | 28-29 July 2025 | Deakin Waurn Ponds Campus |
|  | 15-16 | 6-7 October 2025 | Deakin Waurn Ponds Campus |

The online after-school workshops will build on the face-to-face intensives and provide opportunities for giving and receiving feedback. They will allow participating teachers to engage with unit staff and peers to share progress and approaches and clarify and talk through any difficulties with learning and assessment tasks.

**Note**: delivery of the final intensive will be held at Waurn Ponds Campus to provide participants with the opportunity to engage with facilities and cutting-edge equipment relevant to the outcomes of the course.

Facilities include accommodation, free parking, access to campus facilities, and public transport options. Further details will be provided on enrolment.

# **Course Summary**

# Unit 1 (Semester 1 2024): EDT701 Creating Digital Solutions: Design Pedagogies

In this unit, teachers will strengthen existing knowledge and build confidence in programming principles and the design processes, allowing them to bed down and extend existing knowledge about problem-solving through computational thinking and programming. Learning activities will include developing a simple game, using a small, single-board computer. There will be a pedagogical focus on experiential learning, design pedagogies, and unplugged learning. The skills developed in this unit will be built on in the following units.

# Unit 2 (Semester 2 2024): EDT702 Data and Information: Curriculum innovation

This unit develops teachers’ knowledge of digital and ethical concepts related to the use and management of data in contemporary society, including considerations of safety, diversity, and justice. Teachers will explore innovative approaches to curriculum through a focus on everyday information systems that collect, represent, store and share data and information. They will examine real-world data-related issues affecting privacy and security, and the legal and ethical frameworks that affect individuals, industry, and governments. Learning will involve looking more deeply at and extend the information systems involved in the games built in the previous unit.

# Unit 3 (Semester 1 2025): EDT703 Digital Systems: Curriculum Planning and Assessment

This unit enhances teachers' knowledge of digital systems concepts and design approaches and builds skills and confidence in how to teach these concepts and approaches. Teachers will investigate the components of digital systems and the connections between devices, sensors, physical machines, networks, and people. Building on the previous unit, teachers will create multi-user, networked games. The teaching and learning emphasis of the unit is curriculum planning and assessment. Teachers will draw together digital systems knowledge and teacher professional knowledge to plan and develop assessment tasks suitable for the students they teach, including developing strategies for effective differentiation of learning and addressing the learning needs of diverse students and groups.

# Unit 4 (Semester 2 2025): EDT704 Teacher Agency in Digital Technologies: Working with Community and Industry

In this unit teachers will draw on pedagogical content knowledge developed in earlier units to investigate, design, develop, and communicate a curriculum implementation plan and a communication strategy for strengthening Digital Technologies in their schools. This unit provides teachers with opportunities to strengthen their professional identities, professional networks, and curriculum leadership. The unit enacts place-based learning, where teachers will investigate their local communities and industries to inform their plans and develop resources appropriate for their own school’s context.

# **Assessment requirements**

Assessment in this course uses an innovative online platform called *OnTrack*. OnTrack will allow enrolled teachers to set their own learning goals within the units’ assessment frameworks, reflecting individual aspirations and the time they are able to commit to the course. Teachers can choose to complete only those tasks required to attain a pass for a unit, or to set higher goals in terms of grades, which will allocate additional tasks that extend learning to the chosen grade level. Teachers can change their elected grade level during the unit teaching period to reflect growing confidence, higher aspirations based on feedback, or changing personal circumstances.

The tasks completed for each unit will contribute to a learning portfolio demonstrating that teachers have met the unit learning outcomes. A range of task types will be included, for example, evidence of completing practical activities, evidence of group interactions, written documents, presentations, and multimedia artefacts that have been found or created as part of the learning. These tasks will be completed progressively across the trimester, and evidence is submitted via the OnTrack platform when the task is completed. Lecturers will provide formative feedback on these tasks to help ensure that the teachers are performing at the standard of their chosen grade. At the end of each unit, teachers will submit a reflective self-assessment which—together with the completed tasks—will be used to determine the final result.